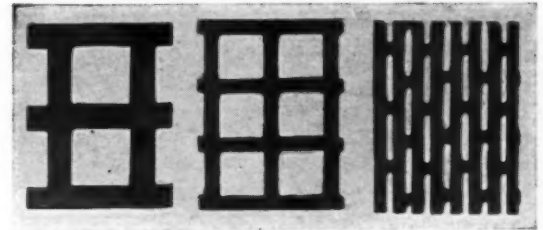
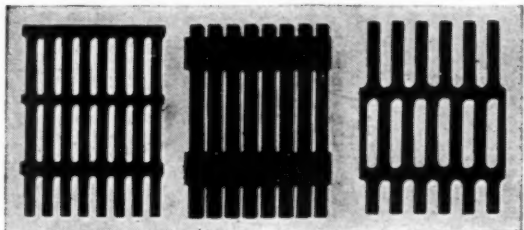
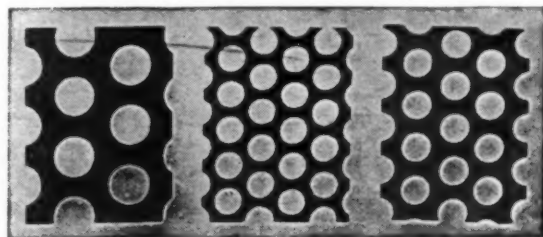
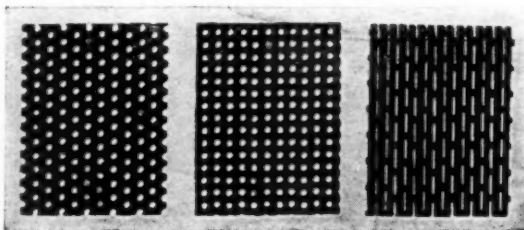


OCT 26 1923

# AMERICAN ARTISAN and Hardware Record

Vol. 86. No. 17. 620 SOUTH MICHIGAN AVENUE, CHICAGO, OCTOBER 27, 1923. \$2.00 Per Year.

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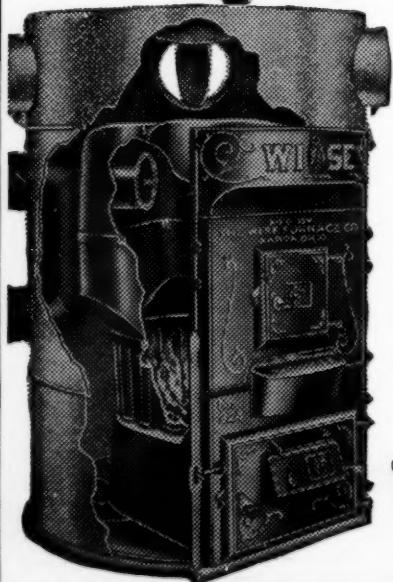
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Address all communications  
and remittances to  
AMERICAN ARTISAN  
AND  
HARDWARE RECORD  
620 South Michigan Avenue  
CHICAGO, ILLINOIS

PUBLISHED EVERY SATURDAY BY THE ESTATE OF DANIEL STERN

Eastern Representatives: C. C. Blodgett and W. C. White, 1478 Broadway, New York City

Yearly Subscription Price: United States \$2.00: Canada \$3.00: Foreign \$4.00

Entered as Second-Class Matter June 25, 1885 at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879

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Vol. 86. No. 17.

CHICAGO, OCTOBER 27, 1923.

\$2.00 Per Year.

## ON THIS PLATFORM THERE IS ROOM FOR EMPLOYER EMPLOYEE AND GENERAL PUBLIC.

One of the real dealers among responsible labor unions, George L. Berry, President of the International Pressmen's Union, recently gave expression to his conception of the principles for which the American Federation of Labor stands, in the following manner:

"We of the American Federation of Labor stand for four great principles governing industry; these are the ownership of property; an adequate return on investments; an adequate sum allowed industry for deterioration; that all workers, including the managers, get proper compensation for what they put into industry."

It is worthy of note that Mr. Berry has also recently demonstrated his fitness as a leader, first by outlawing a strike of the New York Pressmen's Local, which was declared without authority from the National body; secondly, by forcing the outlawed strikers to go into conference with their employers; third, by helping to secure for them re-employment and under better conditions.

There was a period during the past ten years, and until quite recently, when spokesmen who claimed to have authority to speak for organized labor made the average man—whether he was an employer or a "general public" person—feel that the tendency of the labor unions was toward socialism and other forms of radicalism, even toward communism.

The "borers from within," however, failed to convince, at any one time, a sufficient number of the rank and file to do any great damage, and within the past year there has been a decided change of attitude; the principles announced by Mr. Berry and quoted in the

foregoing, form a platform which is broad enough to give room for every employer who is fairminded, for every employee who is willing to render reasonable service for fair pay, for every investor who does not look for improper returns on his investment, for every consumer who is willing to pay a price consistent with good quality.

And this platform is worthy of support by every decent citizen, be he non-union or union employee, be he closed or open shop employer, be he capitalist, be he consumer.

There will, of course, be differences as to what constitutes "proper compensation," but as time goes on those differences will not be so acute, because "Labor" of the desirable class, is today engaged in business in many forms. They own and operate banks; they run coal mines; they operate stores and factories; they own property—and in all of these activities they are learning that "Capital" must have a fair share of the profits of the business in which it is invested, or it will pull into its shell, and that when this happens "Labor" is the first to suffer. They are learning also that limitation of output does not always mean more employees or more wages.

The loud-mouthed, grafting business agent is becoming less conspicuous, and his place is being taken by men who recognize the responsibilities of a leader—both to the men for whom he speaks and to those with whom he deals for them.

And on the other hand, the employer has seen the value of contented employees, as against the troubles he was bound to have with men who had to be driven rather than led.



## *Random Notes and Sketches.*

*By Sidney Arnold*

Many years ago, when I began to write about and for merchants, one of my first associates and also one of the best friends I made in this big city was George Blackstone Irving. He was a big, hale and whole-hearted fellow with a big voice and a lot of good sense, coupled with a sense of humor.

During the past fifteen years, Mr. Irving has been engaged in commercial organization work, especially along the line of developing a closer relation, and therefore greater confidence, between the merchants and the consuming public. He has realized that before anything worth while of that sort can be accomplished it is necessary that there should be a real "home pride" among the merchants in their community, and that only then can there be any hope of developing a similar sentiment among those who buy from these merchants.

Recently Mr. Irving has organized his work into what he terms "Home Community Life" for the purpose, as he puts it, of selling the home community and home merchants better to the home folk, and judging from what prominent men say in cities where he has helped the merchants, he should have no trouble in keeping busy in his good work nor in reaping the financial reward to which he is entitled.

\* \* \*

Forty years ago, in October, 1883, the first issue of the *Inland Printer* made its appearance, and so the October, 1923, issue is an anniversary number—and one to be proud of.

I have read the *Inland Printer* for many years with much interest, pleasure and profit, and brother Harry Hillman is certainly to be congratulated on the manner in which this progressive exponent of good printing has grown and developed from a 24-page pamphlet to a 212-page book.

Its influence is great, because it

has always stood for the things that mean real progress.

One of the features of the anniversary number is a facsimile reproduction of the first issue, where I find such subjects discussed: "The Need of an Apprentice System," "Cooling Off a Composing Room," "Arbitration Committees' Award," "An Era of Botches," etc.

It is worth while noting that the printing craft is one of the few in which there is a real and properly directed system of developing new workmen, and also that comparatively few serious labor disturbances have interfered with the business of printing.

It is not stretching the truth when I say that the *Inland Printer* has had much to do with the establishment and success of the apprenticeship system and with the small number of strikes in the printing trade.

The publishers and editors and all the other men and women who have had a share in the development of this great business paper may well feel honored in the very fact that today the *Inland Printer* stands as one of the truly influential organizations in the field whose interests it serves in such a magnificent manner.

\* \* \*

I. B. Allen, Muncie, Indiana, who has been a subscriber and reader of *AMERICAN ARTISAN* almost since the year one—no, he is not quite so old as all that—was a caller at my office the other day and naturally, we had a visit about "the good old days" when many things were different from what they are today, but Mr. Allen says at that, that with all the fault-finding about our present ways the world is getting better and better.

\* \* \*

"Putting on a nice front is always a good idea," said Joe Farris, of the Farris Furnace Company while we were visiting, "but you must know how in order to get away with

it, or you will run into trouble similar to Mrs. James.

"Mrs. James had just moved into the neighborhood and it was her first meeting with the local sewing circle. As the conversation turned on the absent men, one of the ladies said to Mrs. James, 'What does your husband do?'

"'Oh!' said Mrs. James, 'he is manager of a pail factory.'

"'Pail factory?' said the other. 'Why, I didn't know we had such a factory in town. Where is it located?'

"'Well,' replied Mrs. James, 'husband calls it a bucket shop, but I think pail factory sounds much better.'"

\* \* \*

Ed McCarthy was in Florida last spring attending the Hardware Convention, and one evening when he and a friend were out walking an old negro was observed carrying a heavy grip for a white man who appeared like he was from North of Mason's and Dixon's.

The two caught up with the Northerner just as he was paying off the negro, a ten-cent piece being the "wage".

The negro looked at the coin askance and then, a cordial smile breaking over his features, handed it back.

"'Deed, suh," he ejaculated, "yo' knows Ah don' want no pay fo' what Ah done. Jes' gimme dat ole suit o' clothes yo' got on—dat's enough."

\* \* \*

I am not an admirer of Bryan, nor am I particularly struck with the idea of Mr. Darwin that we are descended from monkeys; in fact, the little "poetry" herewith expresses my sentiments just about right:

I never stop to ponder  
As to whether we  
Have ancestral monkeys  
On the family tree.

But I'm always striving,  
As the swift years pass,  
To live so that the future  
Won't think that I'm an ass.



# Choose Right Sizes and Types of Fittings and Half of Your Kicks Will Stop.

*Furnace Installers Have Here Examples of Typical and Unusual Connections for Furnace Jobs.*

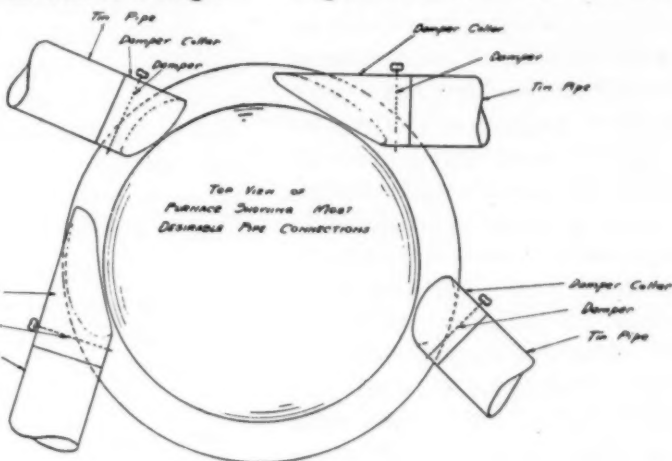
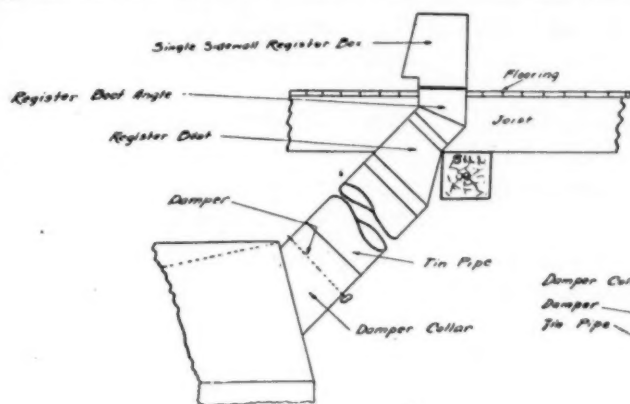
A LARGE portion of the "grief" that the warm air furnace installer has in his business originates in the use of incorrect sizes and

tive matter being reproduced from the pamphlet:

Figure 1 gives a good example of a straight warm air run to a single

ferent ways a warm air run may be taken from a furnace. Of course, it is always best to come out of the hood at a right angle. However, when it is necessary to come off at an acute angle, always be sure that you have the full capacity of the pipe. Illustration also shows how the use of angles may be made unnecessary.

Figure 3 shows a warm air run

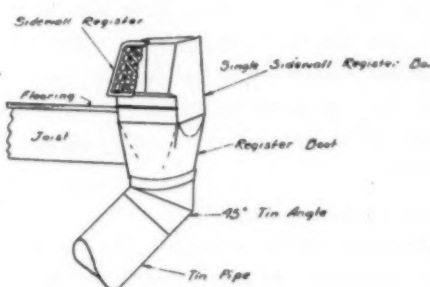
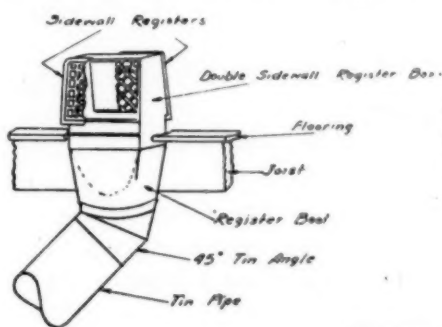


Figures 1 and 2.

types of pipes, connections and registers. Some comes from using a furnace that is too small. Some comes from placing it poorly. But it is safe to say that the largest group of "kicks" are caused by the fittings either being incorrect in size or type, or being improperly connected.

In a pamphlet recently issued by the Homer Furnace Company there are several pages on which very valuable information is given on this very matter and with the permission of R. B. Strong, Vice-President of the Company, we are glad to give further publicity to this important information in the following, the illustrations and descrip-

side wall register wherein a sill interferes with entering the register box in the bottom. It is noted, however, that the use of a register

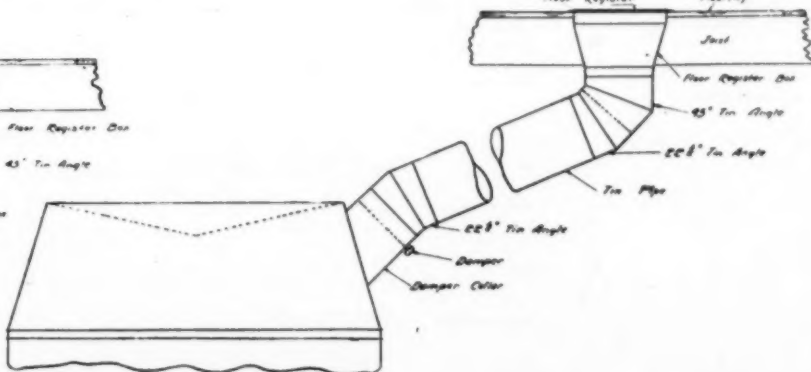
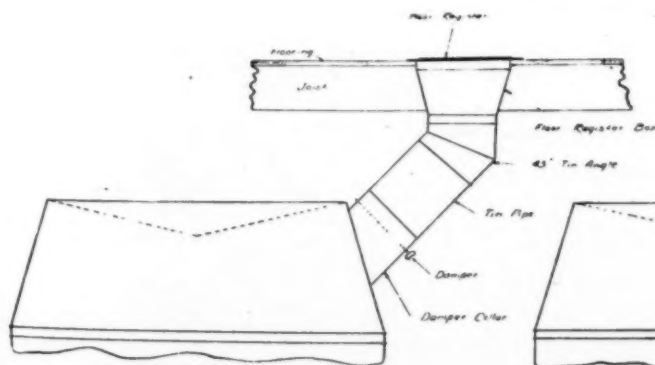


Figures 3 and 4.

boot angle makes it possible to easily clear the sill.

Figure 2 shows some of the dif-

In Figure 4 is shown a good example of a warm air run to a single side wall register. Note the 45-



Figures 5 and 6.

degree tin angle which immediately starts the pipe directly toward the furnace.

In Figure 5 is shown a good example of a direct warm air run to a floor register. You will note that by pitching the damper collar upward it was possible to do away with all but one 45-degree tin angle.

Figure 6 shows an ordinary warm air run to a floor register, using several 22½-degree and 45-degree tin angles in order to make plenty of head room in the basement.

Figure 7 shows how it is possible to "split" a second story warm air run with the use of a wall stack tee.

Figure 8 shows a combination run including a warm air outlet on the first floor and continuing on upward to an outlet on the second floor. Note that the wall stack simply sits on top of the single side wall register box. This system often saves extra warm air pipes in the basement.

In Figure 9 we have a good example of an ordinary wall stack run to a double side wall register on the second floor.

In Figure 10 we show a wall stack run to the second floor where one partition is not above the other. The wall stack is carried under the floor and up again in the proper partition with the use of wall stack angles.

In Figure 11 we have a fine example of a perfect cold air run. In this case the cold air is taken to the

furnace in the shortest possible route. This can and should be done when the pipe does not interfere with head room in the basement.

In Figure 12 we have a good example of a cold air run where it is impossible to seal the joist spaces. The pipe is carried next to the ceiling to make head room and then taken to the furnace on an angle.

Figure 13 shows a 12-inch cold air pipe fastened in the casing without the use of a cold air shoe. Cold air openings in the base of a furnace casing should never be higher than the ash pit. Cold air pipes larger than 12 inches should always enter a cold air shoe.

Figure 14 shows the cold air pipe dropping directly from the joist into a cold air shoe with the use of one 45-degree galvanized angle.

From the same pamphlet we also quote some of the "specifications" for the various runs illustrated, as follows:

#### For Figure 1.

- 1 only 10-inch damper collar.
- 1 only 10-inch heat pipe damper.
- 8 feet 10-inch tin heat pipe.
- 1 only No. 1012S 10-inch register boot.
- 1 only No. 1012S register boot angle.
- 1 only No. 1012S single side wall register box.
- 1 only 10x12-inch oxidized copper side wall register.
- 4 pounds asbestos paper.

#### For Figure 6.

We will contend that the room to be heated will require 12-inch pipe and fittings.

- 1 only 12-inch damper collar.
- 1 only 12-inch heat pipe damper.
- 8 feet 12-inch tin heat pipe.
- 2 only 22½-inch tin angle.

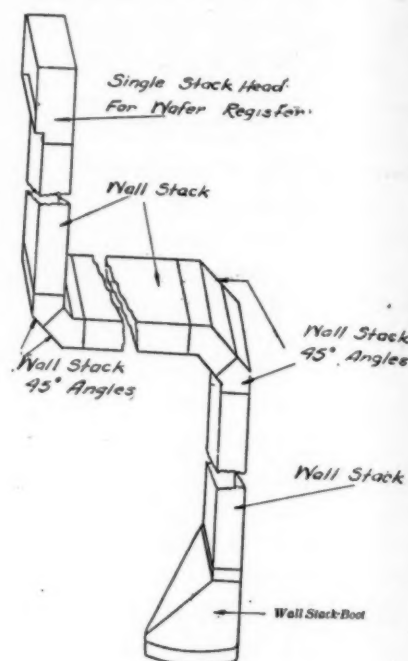
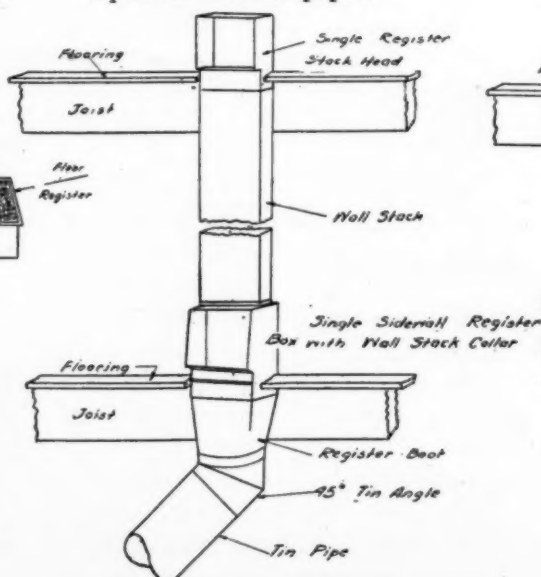
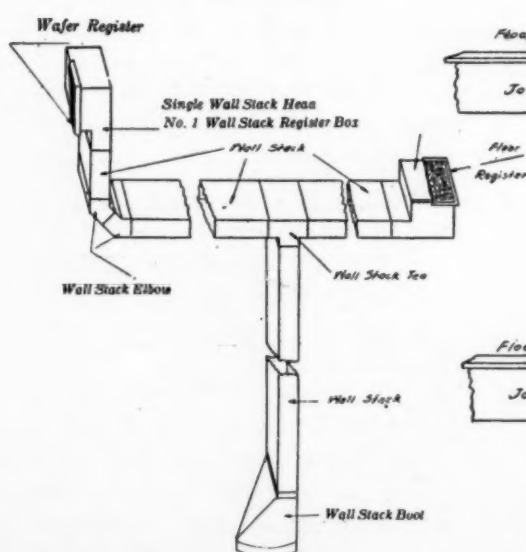


Figure 10.

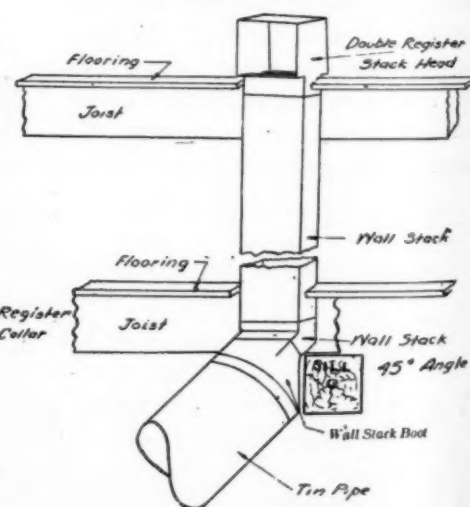
- 1 only 45-degree tin angle.
- 1 only 12 x 14-inch floor register box.
- 1 only 12 x 14-inch oxidized copper floor register.
- 5 pounds asbestos paper.

#### For Figure 9.

For instance, the material re-



Figures 7, 8 and 9.



quired for Figure 7 would be as follows:

We will suppose that the room to be heated requires 9-inch pipe and fittings.

- 1 only 9-inch damper collar.
- 1 only 9-inch heat pipe damper.
- 8 feet 9-inch tin heat pipe.
- 1 only No. 9 wall stack boot.
- 1 only  $3\frac{1}{4}$  x 10-inch wall stack angle.
- 9 feet  $3\frac{1}{4}$  x 10-inch wall stack.
- 1 only No. 3 double wall stack head.
- 2 only 8 x 10-inch B. J. baseboard register.
- 8 pounds asbestos paper.

#### For Figure 7.

You will notice a rather complicated looking wall stack run in Figure 9. This run is simple and should be listed as follows, starting at the furnace:

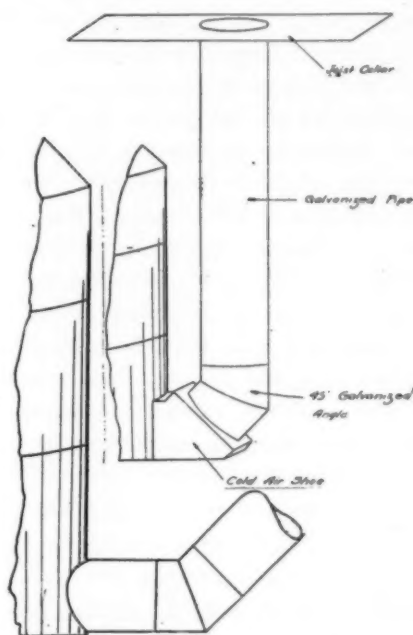
- 1 only 12-inch damper collar.
- 1 only 12-inch heat pipe damper.
- 8 feet 12-inch tin heat pipe.
- 1 only No. 12 wall stack boot.
- 13½ feet  $3\frac{1}{4}$  x 12-inch wall stack.
- 1 only  $3\frac{1}{4}$  x 12-inch wall stack tee.
- 1 only  $3\frac{1}{4}$  x 12-inch wall stack elbow.
- 1 only No. 2 single wall stack head.
- 1 only 8 x 12-inch B. J. wafer wall register.
- 1 only No. 1 A. A. wall stack register box.
- 1 only 9 x 12-inch B. J. steel floor register.

#### For Figure 12.

Cold air fittings are less complicated than any other part of furnace installation. Always take the most

direct route from the cold air wood face to the furnace. Turn to Figure 12. The material listed in this run (using 16-inch fittings) would be as follows:

- 1 only 14x30-inch cold air wood face.
- 8 feet 32-inch joist ceiling iron.
- 1 only 20x24-inch joist collar



Left: Figure 13. Right: Figure 14.

with 16-inch collar.

- 3 only 16-inch, 45-degree galvanized angles.

- 2 only 16-inch, 22½-degree galvanized angles.

- 10 feet 16-inch galvanized cold air pipe.

- 1 only 16-inch cold air shoe.

Some folks make a specialty of constructing mountains out of mole hills.

### Miller of Tulsa Has Solution for Miller of Goodland.

The following suggestion has been received from R. H. Miller, 8 South Trenton Street, Tulsa, Oklahoma, with reference to the problem presented on page 20 of our October 13th issue by L. E. Miller, Goodland, Indiana:

TO AMERICAN ARTISAN:

I saw your furnace problem on page 20 of October 13th, and would suggest for Brother Miller to divide the dome of the casing in four equal parts down to the radiator of the furnace, thus making four pockets or individual rooms in the dome. The rooms I wanted to heat most, which are the largest, I would connect with pipes out of the pockets or rooms to the rear of the furnace.

I should run the pipes on the lower floor as high through the wall as I could, and last I should put in dampers in each pipe next to the dome.

But what is missing in plan or sketch is where the return air comes from it shows where it shall enter. This is just as important as how to let the warm air out. Glad to answer any question on this.

R. H. MILLER.

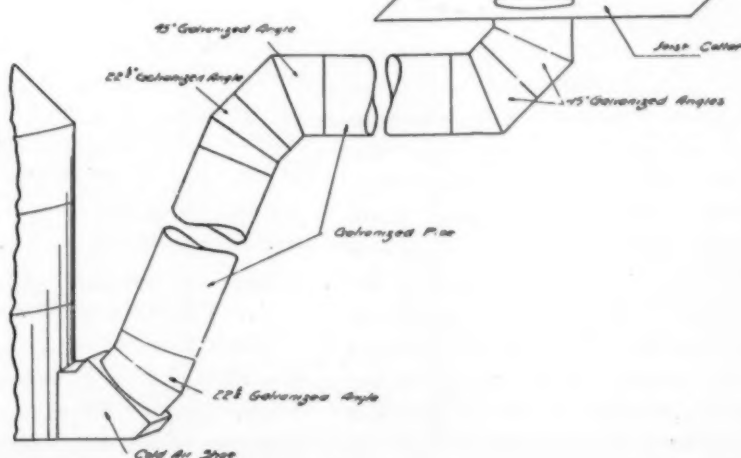
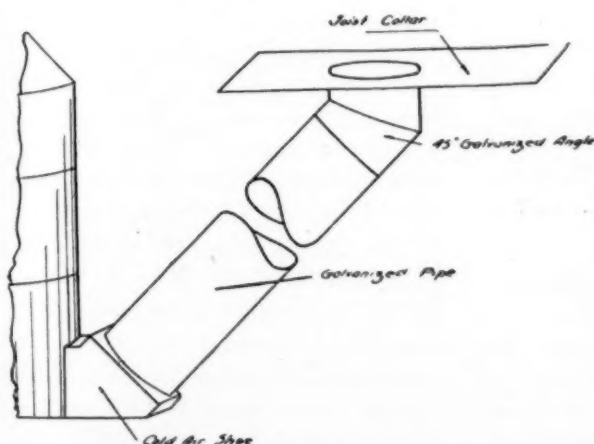
### Who Makes "Neppanator" Ventilator?

TO AMERICAN ARTISAN:

Can you tell us who the makers of the "Neppanator" ventilator are?

CHARLES F. HAUCK AND COMPANY.

—, Ohio, October 23, 1923.



Figures 11 and 12.



## O'Connor Points Out Necessity for Supplying Sufficient Moisture to Heated Air.

*Heating Engineer Explains Why Persons Feel Cold, Although Air in Room May Be at 70 Degrees.*

**I**N the following article which appeared in a recent issue of the *Heating and Ventilating* magazine, G. J. O'Connor points out very forcibly the necessity for supplying sufficient moisture to the air in residences, no matter by what means they are heated:

The question of humidity and its effects on comfort indoors and out, in summer and in winter, is very complex. Moisture is the element of the atmosphere upon whose variability the weather itself depends. An excess of it causes perspiration in days of heat, and fog or rain in the open, whatever the season. In its absence in the home, as we know, we experience the cracking of woodwork and furniture, and the overworking of the mucous membranes of the respiratory tract of the nose and throat; more heat becomes necessary to secure the same amount of comfort.

One term does not suffice to tell all that is known about atmospheric moisture. It is not measurable in degrees, like temperature. In its invisible gaseous state it is a vapor, whose pressure is expressed in thousandths of an inch of barometric pressure. In its absolute state it has a quality which is determined by the number of grains per cubic meter.

As a day with normal atmospheric conditions advances, it is observed that the moisture in the air acts adversely with the temperature, being very high in the early morning and low about mid-day or shortly after. The ventilating or evaporating processes takes place more readily under a noonday, cloudless sky. But when a change in the weather is indicated the amplitude of moisture, like that of temperature, narrows down; much of the water contained in the air becomes condensed in the formation of clouds.

Sometimes clouds thus formed travel hundreds of miles en masse; then again, under varying atmospheric conditions peculiar to altitude and latitude, they may evaporate and disappear in whole or in part, as the storm which they attend diminishes in intensity. From the time of the first appearance of tiny crystals, or minute water droplets, in cloud formation, high up in the sky, until the earth is enshrouded in dense fog, or drenched by a downpour of rain, there is a gradual increase in moisture near the surface. Sometimes the increase is rapid, as preceding a thunderstorm on a summer afternoon. One hundred per cent of relative humidity, of course, means total saturation.

Thus we come to realize a changeable amount of moisture in the air. In quantity it is relative accordingly as it affects our sensibilities to a greater or less extent. When the humidity is low, we can withstand the high temperature of a warm day, but a high humidity develops a sultriness of atmosphere that is quite unbearable, even in winter. Physicians assure us that there is twice as much water in the composition of the human body by actual weight as there is of all other components combined. In a low humidity this moisture in the body is taken up rapidly by the surrounding air; it evaporates from the pores of the skin; but in high humidity it condenses, forming perspiration at the surface. Thus we become sensitive of a measurable water content in the air. When measured within a given space this content is termed absolute humidity.

### Absolute Humidity an Index to Character of Climate.

From a study of the humidities and rainfall from the records of the U. S. Weather Bureau, it is found that the relative humidity of a locality is not as reliable an index to the

character of the climate as is the absolute quantity. The attention of the medical profession has been called to this because physicians had been accustomed to using tables of relative humidity as guides to the comparative dryness of different localities. These tables are dependable in a way. But the ratio between the relative and the absolute humidity is by no means constant. It varies in different localities under different climatic conditions. For instance, the average annual relative humidity at New Orleans, Louisiana, and at Asheville, North Carolina, is 78 per cent; but the density of water vapor at the former city is 14 grams to every cubic meter of space, while at the latter it is only 7 grams.

Thus, in the open, consideration is had of a high and dry climate, as compared with the low and moist. Proximity to large bodies of water, the temperature of which varies but little the year round, has much to do with the presence of moisture in the atmosphere.

A warm day in the arid atmosphere of the Rocky Mountain and southwestern states, with the humidity lower than 20 per cent, which is not uncommon, is maddening in its effects upon the sensibilities of man there. Such dryness is quite inconceivable to the inhabitant of a coast city. Nor is this dryness peculiar to elevation alone, for to the southward of Colorado the elevation slopes to near sea level in the Rio Grande valley, and to below sea level in parts of Arizona. The sombrero protects the head from the burning heat of a summer day when the temperature attains a maximum of more than 100 degrees F. At night blankets are necessary in that country for bodily comfort, due to the fact that the atmosphere has less than 25 per cent of relative humidity.

The United States Weather Bureau has prepared a chart illustrating the annual distribution precipitation and moisture, as well as temperature, throughout the United States. It is based upon observations made at the designated stations for from 25 to more than 50

years. The states of the north and northwest lie in the beaten track of storms crossing the continent. These storms attract to that region warm, moist air from the Gulf States, causing a high relative humidity there. But the processes of condensation over the plateau region are not adequate to produce precipitation like those influences do over the Great Lakes and eastward thereof.

#### How the Same Principles of Atmospheric Moisture Apply to Homes.

These same principles of atmospheric moisture are illustrated in homes and apartments that are not humidified artificially. The air in homes, having a low relative humidity, greedily laps up moisture from furniture, rugs, woodwork and from bodies within. If we open the doors and windows when the temperature outside is near zero, thereby effecting a complete change of atmosphere, upon closing up and heating up to the living room temperature of 70 degrees F., it will be found that the humidity within the home is very low.

While the temperature is at 70 degrees F., or below, one seldom perspires. Air at 70 degrees never heats the body; on the contrary, it takes heat away from the body. When to this loss of heat from the body is added the loss of heat caused by evaporation (which is constantly taking place when the humidity is low) it can be understood why one feels chilly sometimes when the thermometer in a room would seem to indicate that the body should be warm.

#### Forty Years Ago They Knew How to Produce Cool Air for Work Shops.

In the initial issue of the *Inland Printer*, which was published October, 1883, and which was reproduced in facsimile as a section of its Fortieth Anniversary Number, there appeared an article on the cooling of air for a composing room which is quite interesting in view of the progress which has been made in the science of ventilation.

The article follows:

#### Cooling Off a Composing Room.

The composing room of the New Orleans *Picayune* is situated in the upper story of its publication house, just under the roof, and in summer is exceedingly hot. Last season an inspiration seems to have come to one of the oppressed occupants, and in accordance with it a vertical wooden box was constructed in the corner of the room, with openings at the floor and ceiling, and furnished with a pipe for supplying water at the top and a pan and drain at the bottom for receiving and carrying it safely away. The supply pipe was bent over the upper end of the shaft, and fitted with a nose like that of a watering pot, so as to deliver a shower of spray instead of a solid stream. On connecting it with the service pipe, the movement of the water was found to cause an active circulation of the air in that part of the room, which

was drawn in at the upper opening of the shaft and issued again, cool and fresh, at the floor level.

The most surprising thing about the experiment seems to have been the effect of the water in cooling the air to a degree much below its own temperature. With Mississippi water, which when drawn from the service pipe indicated a temperature of 84 degrees, the air of the room, in which the thermometer at the beginning of the trial stood at 96 degrees, was cooled in passing through the length of the shaft to 74 degrees, or about 20 degrees below the temperature at which it entered, and 10 degrees below that of the water which was used to cool it. Of course the absorption of heat by the evaporation of a portion of the water accounts for its refrigerating effect, but the result seems to have been so easily and inexpensively attained that the experiment would be worth repeating.

### Here Are Two Solutions for Miller's Problem. Both Look Good. Take Your Choice.

*American Artisan Subscribers Are Good Scouts and Believe in Doing a Good Turn for Their Fellow Installers.*

ON PAGE 20 of our issue of October 13th, there appeared a request for help in a pipe furnace job which was sent to AMERICAN ARTISAN by L. E. Miller, Goodland, Indiana.

As usual, several of our subscribers have come to Mr. Miller's assistance, and we show herewith two suggestions.

The first is from W. M. Bivens, Decatur, Illinois, representative of

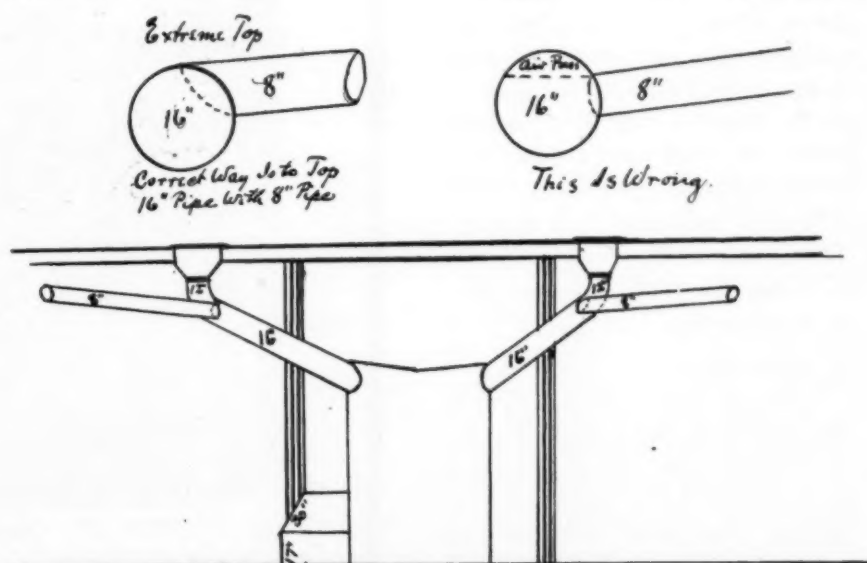


Figure 1.—Solution Furnished by W. M. Bivens, Decatur, Illinois.



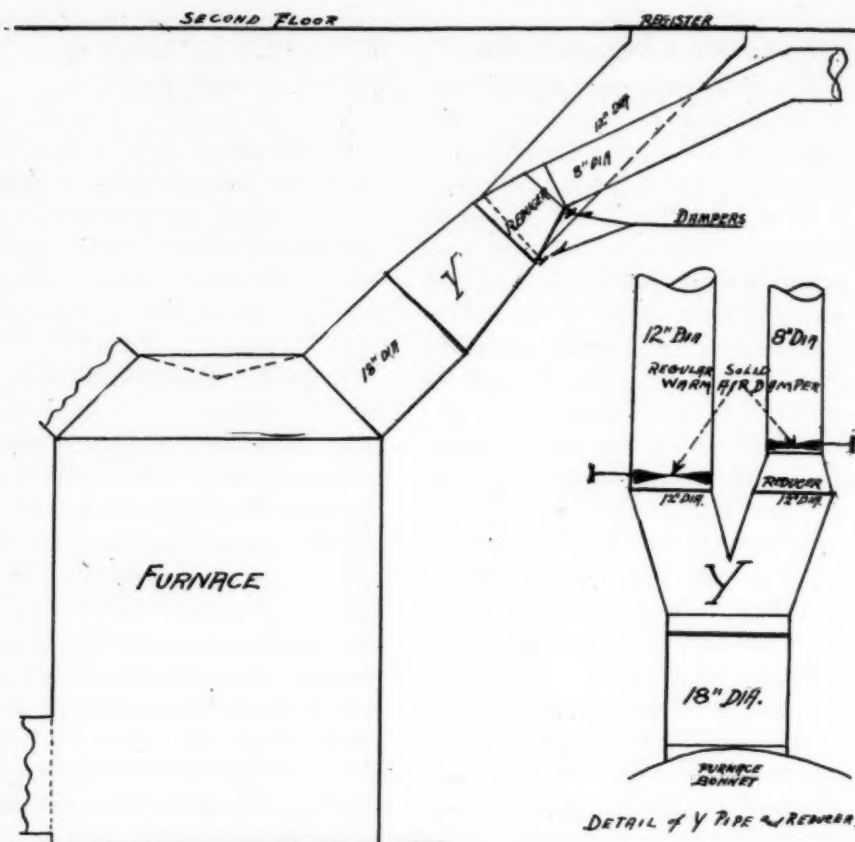


Figure 2.—This Is How O. J. Vashrow, Watervliet, New York, Would Do the Work for Mr. Miller.

the American Foundry & Furnace Company.

Mr. Bivens, it will be noted, makes it plain that take-offs should be from the top of the main pipe and not from the center, as shown in the sketch on page 20 of our October 13th issue.

He also has a better arrangement and connection at the registers.

The second suggestion comes from O. J. Vashrow, 17 Fourteenth Street, Watervliet, New York, who has gone into quite a bit of detail in the sketch submitted by him.

Our guess is that Mr. Vashrow knows the business of warm air heating and has very little trouble with his installations.

#### *Stressing Point of Superiority of Product Now in Vogue in Advertising.*

There are few furnace dealers today who have not adopted the policy of extolling one special feature of their product to the exclusion of all others. They have discontinued the old practice of telling the customer that their product was the best ob-

tainable, while at the same time knocking the competitor's product. They have learned by experience, sad to say, that their competitor

could do some knocking on his own account, with the result that the customer came to believe that the dealers were all a bunch of unscrupulous, dishonest people who were trying to make him the goat.

How much easier it is for a dealer to say, why, yes, ——— company puts out a good furnace, but due to the special arrangement peculiar to our furnace, this furnace is superior to all others on the market. In this way the competitors do not contradict themselves; they do not make the customer appear as a numbskull in the clutches of a group of pirates who are trying to first blindfold him and then take his money; they appeal to his sense of logic and reason, and they sell furnaces. The public are willing to pay the price asked for dependable service, but their willingness to pay does not give the furnace installer the right to take advantage of the customer's ignorance. Fortunately for the honest and deserving dealers, the days of the cut-throats in business are over, as many an unscrupulous installer has learned to his sorrow.

A sound argument must have more than sound in it.

## Black Diamond Furnaces



We claim by the use of water in the bottom of the ash pit, the dust and dirt so common in other makes of furnaces, is easily avoided, the steam caused by hot ashes dropping through grates into this water aids materially the combustion of fuel. Come in and see the Black Diamond Furnace.

### North Shore Tin Shop

F. H. WIRT, PROP.  
General Sheet Metal Work

10 SO. COUNTY ST.—Near Washington Street—PHONE 1048

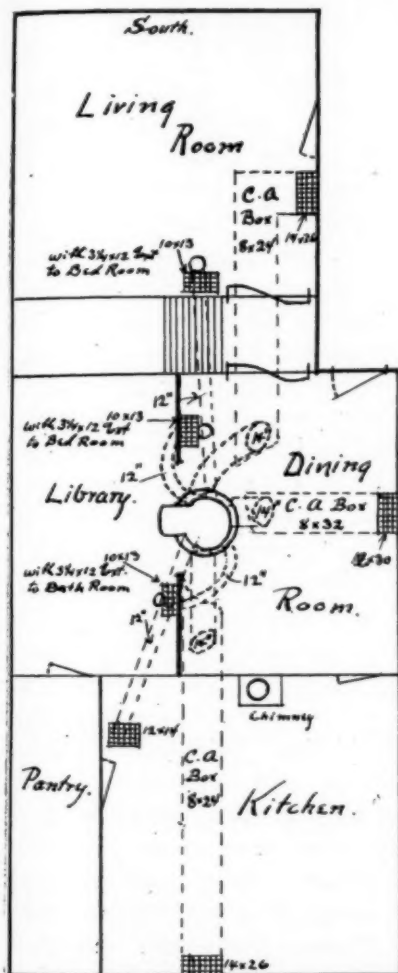
Points of Superiority Stressed in Local Advertising.



### 'Warm Friend' Furnishes Solution to Warm Air Furnace Problem.

Here is one man who does not believe that a pipeless furnace can be made to heat the house, the plan of which is shown on page 27 of our October 20th issue.

G. H. Landwehr, of the Holland Furnace Company, sent in the ac-



First Floor Plan and Basement Pipes for House Shown on Page 27 of October 20th Issue

companying sketch with this comment:

TO AMERICAN ARTISAN:

In answer to the problem on page 27 of your latest issue—put in a "45" Holland furnace as per plan herewith, which any furnace man that knows his business can read.

The pipeless furnace now installed is to be cleaned and polished and added to a collection of antiques.

Yours truly,

"A WARM FRIEND."

### Truth in Advertising Builds Confidence in Your Business.

Advertising is the vehicle upon which the products of industry are carried from producer to consumer. We are not particularly concerned with the evil purposes to which advertising has been put in the days gone by. We know that no matter to what ineptitudes advertising has been subjected during its course of evolution, today it has found its proper function in the business world.

The laws governing the usefulness of advertising were just as true thirty years ago as they are today. These laws have not varied in their fundamental structure any more than human nature has, and as long as human nature does not change, the laws governing the proper use of advertising cannot change; they are inseparable.

The man who is deceitful, undependable and generally unscrupulous may have business ability, but his credit at the bank won't be good for long. The same thing is true of advertising. The copy which does not tell the truth is worse than useless, because it is not founded on the sound principle; it is beginning life with a very weak constitution.

The advertisement, however, that tells the truth must succeed, because it is rendering a service; it is the representative of industry, science and invention going among the people and educating them into the newer and better ways of performing their daily labors; it is the town crier of old clothed in the new garb of printer's ink and disseminating knowledge valuable and useful to all.

Only insofar as this knowledge is truthful and reliable is it useful. Imagine the damage that will accrue from one little error in the plans for a building—where thousands of dollars worth of materials of the wrong kind are shipped and which must be returned—and you will have only a very small picture of the harm done by advertising

that does not represent the true state of the situation.

Make your advertising truthful; have it as near to a fac-simile of yourself as is humanly possible to do so; make it represent you in thousands of places all at the same instant. Then your business will grow.

### Toledo Police Chief Solves Itinerant Merchant Problem.

The Toledo Better Business Commission after receiving numerous complaints that unlicensed merchandise peddlers were misrepresenting goods, took the matter up with the police department. H. Jennings, chief of police, by letter, advised the commission that he wished it to know that the police department would cooperate in all ways possible. Mr. Jennings further advised that every peddler of merchandise would be sent to the office of the commission for approval before being given a license to peddle in the city. He asked that the goods of an applicant be investigated and official approval given for police department records. "In that way," writes Mr. Jennings, "I think we will be able to eliminate the fakers and protect the merchants of this city as they should be protected."

### Decline in Business Failures Indicate That Conditions Are Becoming More Staple.

Someone has said that in the war period it required a positive genius to lose money. Although business depression had its start in the spring of 1920, this was not reflected in a higher mortality rate for business until the beginning of 1921, when the necessary year-end settlements began to bring trouble. The mortality rate continued high throughout 1921 and 1922, and even tended to increase after business had definitely begun to improve, because this necessitated a clearing up of the wreckage in the wake of the storm. The sharp decline in the rate in recent months affords unmistakable evidence that business is on a solid basis.

# Metal Tomb to Create Distinct Place for Itself, but Paint Must Be Omitted from Construction Materials.

*Drawing Shows Manner in Which Designer Constructs Unique and Artistic Metal Tomb.*

Written Especially for AMERICAN ARTISAN AND HARDWARE RECORD by O. W. Kothe, Principal, St. Louis Technical Institute, St. Louis, Missouri.

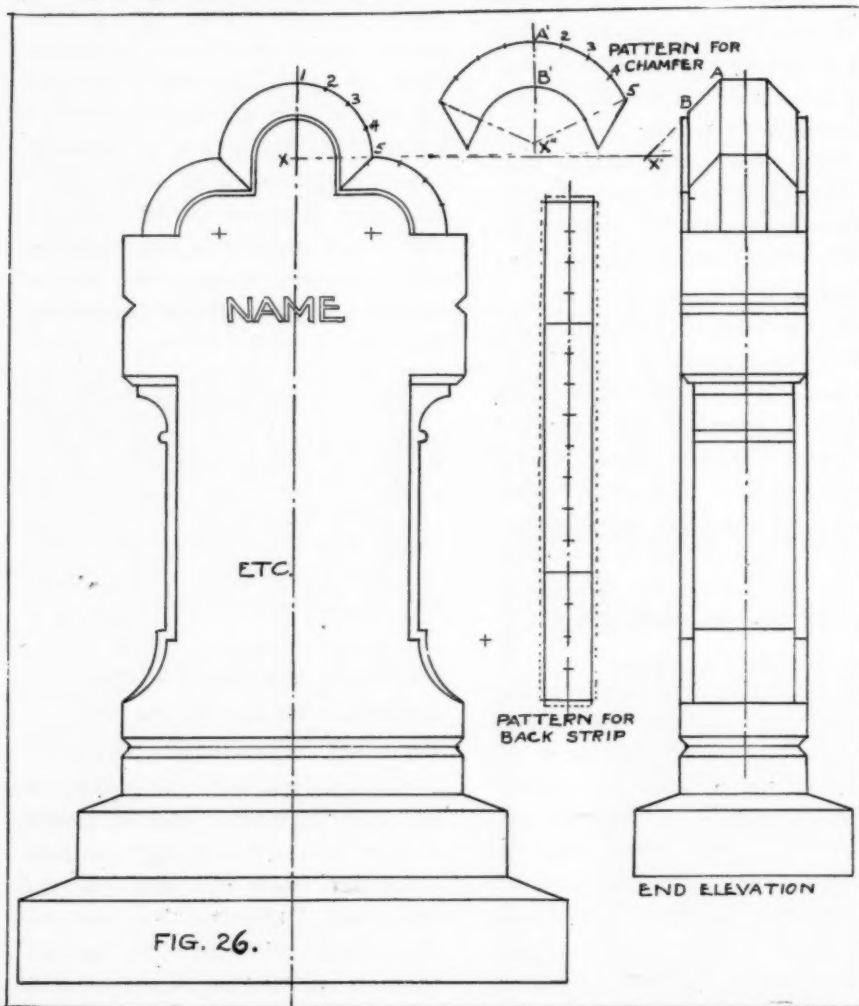
IN THE accompanying figure we have a design that is quite unique, simple and still has enough jogs and offsets placed in an artistic manner to make a good looking tomb. By comparing the end elevation with

which the arcs are described in the side elevation and the chamfer line A-B of end elevation runs on a 45 degree line. By extending a line from the center X of the side elevation to the end elevation, we note

from side elevation as 1-5 and draw lines to the center X". After this we add the triangular portion of the side elevation and this completes the pattern for chamfer.

The center strip which attaches to these chamfers is merely a straight strip as shown in pattern for back strip. Observe the end arcs of the side elevation are of the same radius as the central top arc, so that the half pattern of the chamfer X"-A'-5 will make the pattern for these sides by simply reversing when forming up. Otherwise the rest of the work is just straight and requires no laying out to speak of from a geometrical standpoint.

With this article, we must again mention to readers that these metal tombs must be made of materials that will not corrode and do not require painting. Paint should be left out of the work here proposed, because we are not making a substitute for the stone of the past, but are creating a distinct place for the metal tomb by itself. The higher the standard of the manufacturer, the more secure will this product be to the trade. Shops that attempt this work and make botch designs will do inestimable harm to those who mean well and seek to give value received. In any event the Cemetery Association will exercise its prerogative on what it feels suitable and representative to its track of ground and artistic surroundings.



Pattern of Metal Tomb Which Is Rapidly Creating a Place for Itself in Cemetery Ornament Work. Let It Be Known, However, that Non-Corrosive Materials Must Be Used.

the side, we see that the small offset members placed in the ends are straight and are more to break the monotony of straight field.

The top is curved, making quarter or semi-circular turns, working to the chamfer in the end elevation as shown. Observe the points from

this chamfer line, when extended, meets the center line X'. This will be the radius for describing the arcs in the pattern. We set our dividers to X'-A, and using any point as X" as center, we strike an arc indefinitely. On each side of the center line we set off the girth

AMERICAN ARTISAN AND HARDWARE RECORD is always glad to have its readers submit specimen advertisements for criticism.

Photographs of sheet metal work, when accompanied by explanatory remarks, are especially valuable to readers.



## Are You an Egg When You Get Stepped On in Business or Are You a Rubber Ball?

*Greenberg Visits Cal Sizer's Shop and Finds a Sheet Metal Man Who Knew How to Bounce Back.*

Written Especially for AMERICAN ARTISAN AND HARDWARE RECORD  
by I. C. Greenberg, Cleveland, Ohio.

THERE was a lot of fun over at Cal Sizer's shop the other day. I happened in about noon, and Cal being out to lunch, I thought I would wait till he returned.

There was always a lot of horse-play in that shop at noon. The boys were steady stickers and have made a sort of family affair of it. Cal employed four men, and among them was one whom they called "Slippery Jim." I do not know his right name, but Slippery Jim just suited him to a "T."

He is a tall hungry-looking fellow and wears glasses. His nose has the most adorable hump on it you ever saw, and his Adam's apple is a wonder. The reason that they call him Slippery Jim is that he can work in and out of tight holes quicker than any mortal you ever saw. He just seems to slip right out of any place that an ordinary man would get stuck in.

At any rate, Slippery had purchased a new pair of overalls and was adorned in them. Now in that shop new, or clean, overalls is a signal for horse-play. This being noon, Slippery set his lunch on the bench and went back to wash his hands. "Red" Hagen saw that he had eggs in his lunch, took one of them and placed it under the paper which Slippery had fixed to sit on, on account of his immaculate overalls.

Well, to make a long story short, Slippery Jim returned and without looking, hopped upon the bench and landed his long, lanky frame squarely on the egg that Red had placed there. Now Slippery was sort of crabby in many things, especially when it comes to eggs and new overalls; there was a row that you could hear across the street. The madder he got the louder they all laughed. In the meantime Cal returned from lunch, and hearing the

noise, asked what was wrong. After being told, he too saw the humor of the situation and laughed even louder than the rest of us. This got Slippery as sore as a boil and he forthwith quit his job.

"Gee," I said, "I am sorry he quit just because we laughed at him. It seems that he can't take a joke."

Cal just laughed some more and said, "He didn't quit. He'll be back about three o'clock and go back to work without saying a word. He has done this a dozen times in the last four years he has been with me."

Pretty soon Cal and I were deeply discussing an order which I secured and thanked him as usual. We returned to the egg incident and were discussing the folly of horse-play, when I spied a box containing a dozen rubber balls. These were the kind of balls that kids play with, and have nothing at all to do with the materials used in this business. I became curious and asked Cal what the balls were for.

"These balls are for my kid," Cal replied. "That little kid can lose more balls than any kid in town. It just worries his mother to look for them, so as soon as he loses a ball, she goes to the box and gets another. In the meantime the old one is found and placed in the box again. Some system, what?"

"That is unique, Cal," I admitted. "It saves time looking for the lost balls, and it gives the ball a chance to show up all by itself."

"By itself is right," Cal said. "Last night I stepped on one of those darn balls and nearly broke an ankle. They are sure bad to step on."

"Not to change the subject, Cal," I said, "This egg incident is something that I can not forget. It just portrays the way some of us business men act. They do not seem

to stand the grind of business at all. As soon as things go against them, they act just like that egg."

"You mean Slippery Jim, don't you?" Cal asked.

"No," I replied. "I mean the egg. You of course realize that as soon as Jim settled down on that egg it was ruined."

"I'll say it was ruined," Cal said beginning to laugh.

"Also," I went on, "when you stepped on that rubber ball last night did you notice how it bounced back unhurt? It was ready to be stepped on again and again."

"Well, what about it?" Cal asked ignoring the answer I wanted him to make.

"This is what I mean, Cal," I said. "If you step on an egg, it is ruined. But if you step on a rubber ball it just rebounds and does not mind being stepped on. In fact the rubber ball thinks that the joke is on you."

"What of it? I don't seem to see what you are driving at," Cal said in a puzzled sort of a way.

"Here is what I mean," I explained. "Some business men can not stand pressure in business any more than an egg can. While some other business men can take all the stepping on, and still remain whole and unharmed. They just bounce back and come out as good as new."

"Right you are, old boy," Cal said with enthusiasm. "I had a case last week when I landed that hotel job. The fellow who bid next highest to me is so darn sore that he is sick over it."

"There is a difference in men and understanding, Cal," I said. "It takes a real rubber ball of a man to succeed in business these days. No man can afford to lay down because he has been stepped on in competition. He can not afford to lay down and play the part of an egg. He must bounce back and show his competitor that being stepped on has no effect at all because it is to be expected once in a while."

"Right you are," Cal replied. "I well remember my first three years in business. Goshamity, I was



stepped on every day. It seemed that every shop in town had organized to put me out of the race; but I just bounced back like the rubber ball you speak of, and showed them that I could stand it. Finally they just quit stepping on me because it seemed to hurt their feet. Now I have a fine business and some of the fellows that stepped on me are out."

"It takes perseverance and tact and resiliency to survive business reverses," I said. "No man can succeed if he is like an egg, because the first stepping on he gets, he is ruined just like an egg."

Now, brother, as you read this article, just stop and think. How many men do you remember who were just ruined with the first stepping on they got? Are you an egg, or are you a rubber ball? Are you a good loser, or are you an egg. Are you solid through and through, or have you a weak business egg shell over your body? Remember this one thing well. You must bounce right back smiling and make the stepper dislike stepping on you. Learn to like the things you do not like, and you will succeed in everything. The great trouble is that there are too many eggs in this business who just make a mess after they are stepped on and never get themselves together again.

Be a rubber ball and always remember that if you bounce back again, it proved that you can stand the racket of business. Don't be an egg.

In the meantime, I want to tell you that Slippery Jim is still on the payroll of Cal Sizer. I s'pose you are real glad?

### *Lamneck and Mooney Visit Cleveland and Cincinnati Sheet Metal Contractors.*

The following letter from George T. Mooney, Secretary of the Ohio Sheet Metal Contractors' Association, shows that he is "on the job":  
TO AMERICAN ARTISAN:

I was a guest on the evening of October 18th at a joint meeting of the Cleveland Sheet Metal Contrac-

tors and Building Construction Employers' Association. The attendance was fairly large and representative, including a considerable number of ladies. After a very elaborate banquet, I was introduced and spoke briefly on the value and need of coöperation. Then the tables were removed and dancing began.

It was a very delightful party and it occurred to me that it is an extraordinary privilege to meet in social intercourse with people of your own interests, aspirations and sympathies, and I imagined that I could notice a much more fraternal feeling than usually prevails at social gatherings.

On October 9th, A. P. Lam-

neck and the writer were guests at a dinner and business meeting of the Cincinnati Association.

Mr. Lamneck gave a very interesting and instructive illustrated talk on "Cost Accounting and Overhead," that was listened to with attention and elicited a general discussion, resulting in a resolution to publish the address in circular form for distribution to their members.

The writer talked briefly on association work and coöperation. This was an inspiring meeting and I am sure will be followed by increased activity of the Cincinnati Association.

Very truly yours,  
GEORGE F. MOONEY,  
Secretary.

## *Ohio Sheet Metal Contractors Should Vote and Work for Constitutional Amendment on Liability.*

*Secretary Mooney States That Amendment Is Endorsed by State Federation of Labor and Manufacturers.*

OHIO sheet metal contractors are urged by Secretary George F. Mooney to work and vote for the amendment to the State Constitution which, if adopted, will stop the activities of the ambulance-chasing lawyers.

The letter which Secretary Mooney has just sent out to all members of the State Association and the Auxiliary reads as follows:  
DEAR MEMBER:

If I asked you to go to the nearest mail box to your home, before you went to business tomorrow morning, and deposit a letter for me in order to save me from a possible verdict in court that might clean me out financially and break me up, I know you would cheerfully comply and make certain not to forget.

I am, very fortunately, not in such a position, but *you are*, and we are appealing to you to go through about the same procedure for your own defense.

If one of your employees meets with an accident arising out of such employment, you may be called upon to defend yourself in court from a verdict that would bankrupt the average employer.

### **Present Law Fails to Safeguard Employer**

You are paying, a premium to the "Workmen's Insurance Fund" of Ohio; the law creating which was supposed to protect you from further liability on account of accidents when you had complied with lawful requirements.

The Supreme Court has rendered decisions, in overruling lower courts, that

practically destroys all of the protective features of the law. So that you must still pay your premiums, are prevented from underwriting your risks and are given but little protection, and in consequence the ambulance-chasing lawyer has again entered the field to harass you.

The open liability clause in the Constitution is now *wide open* and in order to correct this unfair menace, both the employer and the employee appealed to the legislature for permission to vote on an amendment to the Constitution. The request was granted and will be voted on November 6th.

It is your plain duty to take an active part on this subject; see that the voters in your family and employment are advised; join with your association in a general movement and coöperate with other agencies to the end that your community acquires itself creditably.

### **Vote Against Old Age Bill**

The Old Age Bill, an initiated and referred bill, will also be voted on, and if a majority voting on it vote for it, it will become a law. The most dependable authorities declare it will put a premium on shiftlessness and waste and strike a deadly blow at thrift and economy, and tends to break down the incentive to accumulate property which would be a thrust at the permanency of civilization.

It is estimated that the cost of the first year's operation would be thirty million dollars and this would increase annually for many years, and a very large new army of officeholders would be created, numbering forty to fifty in each county.

The bill does not provide for raising the funds for its administration, so it would come from the general revenue fund, which means that it would have to

be raised by taxation, doubling the amount that is now raised.

The two additional amendments that will be on the ballot are of minor importance. One removes the words "male—white" from the Constitution, which are already nullified by the 15th and 17th amendments to the Federal Constitution, and the other one authorizes the Secretary of State to use the newspapers to advertise proposed constitutional amendments and would probably save money.

Two other bills will be on the ballot as referendum; one eliminates elected tax assessors and re-creates the old Tax Boards, and the other is a tax bill styled the Taft Bill.

Very sincerely yours,  
GEORGE F. MOONEY,  
Secretary.

### ***Will of Prominent Zinc Man Provides for Gifts to Church, University and Charity.***

Princeton University, the Fourth Presbyterian Church of Chicago, the Chicago Nursery and Orphanage, and relatives are named as beneficiaries in the will of David B. Jones, zinc manufacturer, which was recently admitted to record. The will disposes of an estate estimated at \$957,000.

The Fourth Presbyterian Church is given \$50,000, Princeton University and the Chicago Nursery each receive \$25,000, and the remaining \$857,000 is divided among his five children, Gwethalyn, Owen and Herbert Jones, Mrs. E. H. Bennett and Mrs. Winifred McCurdy.

Mr. Jones was one of the pioneers in the zinc industry, and died in his home in Lake Forest on August 22.

### ***Copper Roof on Christ Church in Philadelphia Still in Good Condition After 175 Years.***

Old Christ Church in Philadelphia has a copper roof which was laid about 175 years ago and it has been referred to frequently as one of the many examples of the lasting qualities of copper roofing.

But a short time ago the story went about that this old copper roof had at last struck its colors and that extensive repairs were being made.

Investigation proved, however, that it was not a repair job to the copper at all.

It seems that John Decker & Son,

Philadelphia roofers, were employed to replace the wood balustrade with copper, and to add some copper to the tower. The roofer said the old roof is in excellent condition, and that he is engaged merely in lifting certain parts of the old roof in order to replace some rotted timbers.

The wooden balustrades, quite badly rotted, were replaced with copper, and all other exposed woodwork on the roof was covered with the same metal, reducing the fire risk of this venerable old building.

The woodwork on the south side of the steeple was rotting. This was renewed and covered with copper, just as the north side of the steeple had been covered several years before.

When asked for his opinion of the present condition of the roof, T. Broom Belfield, 1905 Spring Garden street, Philadelphia, one of the present officials of the historic old church, said:

"The copper roof on the church was placed there about 175 years ago, and so far as ordinary wear is concerned, it apparently is as good as when placed there.

"The value of Copper for roofing cannot be over-estimated, requiring little or no attention. I have used it for years."

### ***Correction of Error in Chairman Carroll's Report in Last Week's Issue.***

In our issue of October 20th a printer's error occurred in the report of the Metal Branch of the National Hardware Association convention at Atlantic City, October 18.

This error will be found in Chairman Carroll's Report on page 30, under the sub-head, "Applicable to All Products."

The report appeared as follows:  
Even gauges—No. 10 to 28, inclusive.  
Sizes—Widths, 24, 28, 30 and 36 inches.

Lengths—84, 96 and 120 inches.  
Also 42, 44 and 48-inch wide by 144 and 28.

Also 42, 44 and 48-inch wide by 414 inches long in No. 20 gauge and heavier.  
I have with me several letters from Major Foote. . . .

The report should have read as follows:

Even gauges Nos. 10 to 28 inclusive.  
Sizes: Widths—24, 28, 30, and 36 inches.

Lengths—84, 96, and 120 inches.

Also 24 inches by 101 inches in gauges 26 and 28.

Also 42, 44, and 48 inches wide by 144 inches long in No. 20 gauge and heavier.

I have with me several letters from Major Foote. . . .

It will be noted that the fourth line of the corrected copy was entirely omitted when the report appeared. Also the last line in corrected copy was repeated when the report appeared. This line should read: "Also 42, 44 and 48 inches wide by 144 inches long in No. 20 gauge and heavier."

### ***Frank Gerhold Is Associate Manager of Minneapolis Office of Berger Manufacturing Company.***

N. V. Lux, who has been associated jointly with W. J. Myers in the management of the Minneapolis office and branch of The Berger Manufacturing Company, has resigned from his connections with the Company. Frank Gerhold, who has been with the Company for the past sixteen years in the Minneapolis office, has been appointed to manage the branch jointly with Mr. Myers by Al. Langenbach, General Sales Manager of the Berger Division of the United Alloy Steel Corporation.

Mr. Gerhold is well known to the trade in the Northwest, having covered the States of North Dakota, South Dakota and Montana for a long period of time. He is receiving the congratulations of his many friends upon his advancement.

### ***John Huss Has a Job; Is Going Broke Refusing Offers***

TO AMERICAN ARTISAN:

Please stop my ad for situation. I am going broke buying stamps to tell people I have a job and cannot take up their offers.

Yours truly,

JOHN HESS.

Dixon, Illinois, October 24, 1923.

Any man who has a job has a chance.



**Poor Economy to Save on Paint  
Whether Your Roof Is of  
Metal or Wood.**

Sheet metal contractors who lay tin or other metal roofing, except copper and zinc, should impress house owners with the fact that painting such roofs every few years, according to atmospheric conditions is not only advisable but actually economical.

The following report of the Board of Public Works of Los Angeles, California, shows that the "City Fathers" were economically inclined and for several years had cut out of the budget an item to cover the cost of painting the tin roof of the dome of the branch city hall of San Pedro, which is now a part of Los Angeles, with the result that this roof after seven years' exposure to the salt air is nearly worthless:

OFFICE OF THE BOARD OF PUBLIC  
WORKS.

Los Angeles, August 1, 1923.

To the Honorable Council  
of the City of Los Angeles.  
Gentlemen:

The Board of Public Works has received the following report from the Chief Inspector of Buildings:

"Last week while making an inspection of the Wilmington City Hall I had occasion to go over to San Pedro to transact some business in my office and took occasion to examine the dome of the San Pedro City Hall and find that the same is badly corroded, which is caused by the salt air. This dome was recovered with high grade tin some six or seven years ago and at that time it cost approximately \$1,000 to cover said dome . . . .

"In making up the annual budget I have repeatedly called attention of the Honorable Finance Committee of the City Council that money for repairs to San Pedro City Hall was necessary and I always included in the amount asked for, sufficient money to re-paint said dome. This has been constantly cut out of the budget and no money allowed. The dome at the present time is in very bad condition and if it is allowed to

pass through another winter of fogs and rain it will be absolutely worthless. If at present time the rust was brushed off with a stiff brush, the tin thoroughly cleaned and two coats of good, red lead applied with a finishing coat of metallic paint of suitable color I am of the opinion that the roof would last a number of years longer.

"I would therefore recommend that you urge the Honorable City Council to take steps necessary to do this work. The cost of painting said dome would be approximately \$300.00."

We have adopted the foregoing report and respectfully refer the same to your Honorable Body with a recommendation that an appropriation of \$300.00 be made to the credit of the Custodian of Buildings Fund to cover the cost of painting the roof of the Branch City Hall in the San Pedro District in the manner recommended by the said Chief Inspector of Buildings in the foregoing report.

Respectfully submitted,

BOARD OF PUBLIC WORKS  
of the City of Los Angeles,  
HORACE B. FERRIS, Secretary.

**Committee Appointed  
to Aid Welding Schools.**

An educational committee was appointed recently by the Gas Products Association, Chicago, for the purpose of coöperating with trade and technical schools in supplying a practical and standard course in welding procedure.

According to an announcement from the association, the users of oxyacetylene welding equipment never have been thoroughly satisfied with the work done by welding school graduates, and at the same time the application for the welding processes has been extended to so many new fields that the demand for skilled operators is constantly increasing. It is thought that by making a thorough investigation of the needs of the industry and then making recommendations to welding school instructors, the instruction programs can be revised and stand-

ardized so as to more fully meet the requirements of the employers.

The committee will endeavor to build up a list of accredited schools which are known to give a standard instruction, and whose students can be depended upon to qualify as satisfactory welding operators. It is proposed to make this educational movement effective all over the country, and since the members of the association have gas and apparatus manufacturing plants in practically all of the important industrial centers of the United States, it is thought this plan can be carried through without difficulty.

**Discarding 2 x 4 Stud  
for Gutter.\***

Upon occasion, when the work of building a string of company houses for miners to live in was going on, a kink was sprung, the knowing of which has come in handy many times. It is now passed along.

There was a back shed to each house, intended for use as a kitchen. The specifications called for a flat seamed tin roof, and while an outlet at the center of the eave was mentioned, a plan to get the water there was overlooked.

The foreman gave an order to a carpenter to bevel the ends of two 2x4 stud pieces to fit, and nail them flat on the sheeting as a "v" gutter from the center of the eave to the gable ends, with a slight pitch.

The tinner (boss) put up a "howl" on account of the extra work in fitting over the stud, and soldering "straight up" seams that appeared at the end of every sheet laid over the stud. He covered the first one made in that manner. The next was different, as he was then prepared.

He cut a strip of 20-inch seamed and soldered roofing tin the length required to extend from the center to the gable, then sheared it through the center, making strips 10-inches wide. He then turned a strip over, soldered side down and folded the

\*Written especially for AMERICAN ARTISAN AND HARDWARE RECORD by L. S. Bonbrake, County Hospital, Peoria, Illinois.



bottom side back upon itself from the center of the strip. This fold was made smooth, but not close at the top. A fold three and one-half inches wide was then formed forward from the top edge, flat over the fold just made. Then he again turned the strip over, to soldered side up, and tonged the center fold to a perpendicular, giving a double edge for a gutter one and one-half inches high, sufficient for the work under contract, as the gutter had to carry the shed water only. The regular flat seam, tin roofing edge was formed on the upper three and one-half inch flange to which the roof sheets were engaged, while the lower flange was filled in with additional tin from the gable to center as needed to nail over the eave.

This method can be used successfully, and frequently under other conditions and circumstances, and the double fold, acting as a trough, can be made higher, when required, if provided for.

### Surveying Farmers' Financial Position.

Commenting on the present outlook of farmers' situation, Archer Wall Douglas, Chairman of Committee on Statistics and Standards in the United States Chamber of Commerce, has the following to say:

"Matters are much mixed in the agricultural world, there being a fair degree of content in some localities while in others the farmers are badly distressed. The entire wheat yield of the country will not exceed 785,000,000 bushels and is being held by the farmer where he can afford to do so. Corn will be a large crop in the surplus corn states from Ohio westward to Kansas and Nebraska inclusive, though there is still a measure of uncertainty as to its ultimate volume owing to the large proportion of it that is not yet out of danger from an early frost. The South raised less corn this year than usual, also less grains, owing to the prevailing obsession for planting cotton. Prices of livestock are not generally attractive to the farmer, save that hogs have advanced of late, accompanied by high prices for

corn. This did much to create more cheerful sentiment among farmers throughout the Central West, and in the West wherever hogs and corn are commodities of importance.

"The cotton crop recently went backwards in practically all states except Texas and Tennessee because of constant rainfall, accompanied by vast hordes of destroying boll weevil and army and leaf worms. This sudden and unexpected destruction changed conditions in some sections, from high hopes to moderate expectations. Modifying influences are higher prices of cotton, the possibilities of more favorable weather, and the general good condition of that host of minor crops which are one of the features of Southern agriculture today. The ultimate yield of cotton will not exceed 10,250,000 bales.

### How Would You Arrange This Sheet Metal Shop.

C. F. Barck, Treasurer of the L. F. Wolf Hardware Company, Mount Clemens, Michigan, desires help in laying out a proposed sheet metal shop to the best advantage,

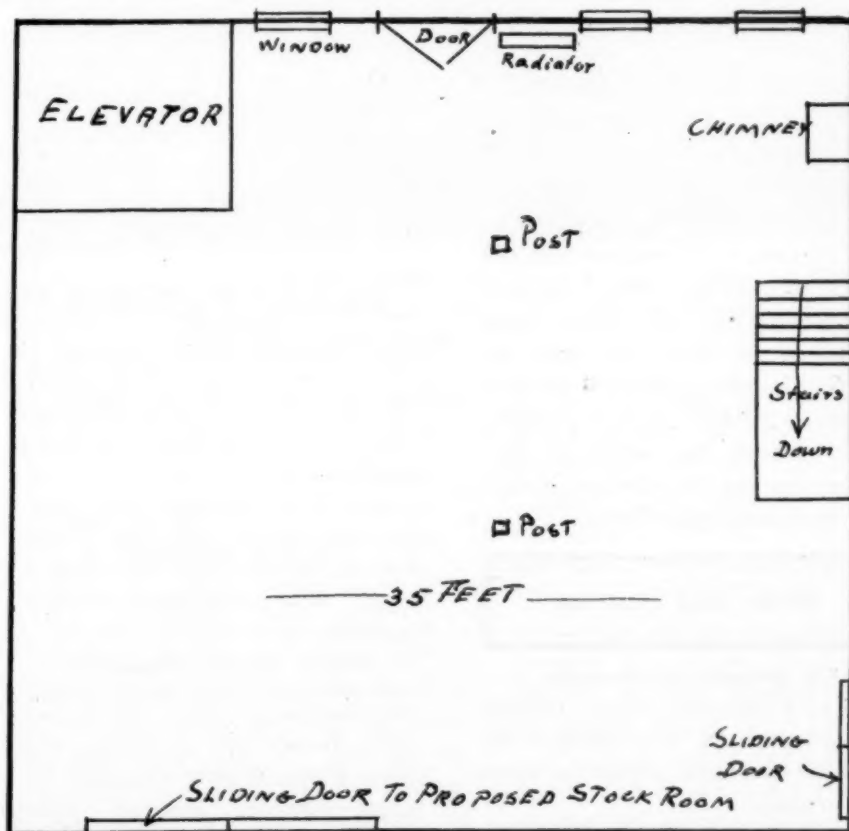
and we pass on his letter to our subscribers knowing that many of them will be in position and pleased to give him assistance.

The shop is to be located on the second floor, the dimensions and general arrangement of the room being shown in the sketch herewith—practically square and 35 feet in width, the windows facing the alley.

Mr. Barck's letter follows in part: We have the following tools:

- 1—8-foot Brake.
- 1—30-inch Roller.
- 1—Number 3 Pexto Combination Shear and Punch.
- 1—Marshalltown Throatless Shear.
- 1—Pexto Square Shear.
- 1—Pexto Bar Folder.
- 1—Pexto Turning Machine.
- 1—Pexto Grooving Machine.
- 1—Pexto Tin Folder.
- 1—Pexto Crimper.
- 1—Large Beakhorn Stake.
- 1—Common Square Stake.
- 1—Pipe Riveting Stake.
- 1—Drill Press.
- 3—10-foot Benches.

If you know of any one who can assist us in finding the best way of placing these tools, we shall greatly



Sketch of Shop to Be Arranged.

appreciate your putting us in touch with them.

C. F. BARCK.

### ***Consumer Has Final Word As to Price Advances.***

In considering the future course of prices, one should not lose sight of the consumer. In 1920 he held the whip hand and forced deflation of retail prices, which naturally move more slowly either up or down than the prices of raw materials. While there is opposition on the part of producers and sellers to deflation, there is also at times a sharp manifestation of hostility by consumers to inflation. When prices of building materials began to soar unreasonably this spring, there was a temporary buyers' strike which had a good effect.

### ***Who Makes "Powell" Automatic Shut-off Gas Valve?***

TO AMERICAN ARTISAN:

Can you tell us who makes the "Powell" Automatic Shut-Off Gas Valve?

STIGLITZ FURNACE COMPANY.  
—, Kentucky, October 23, 1923.

### ***Decrease in Business Failures Is Sign of Healthy Conditions.***

One sign of good business is the steady decrease in business failures. The showing with regard to business failures in September was the best in nearly three years. In fact, the showing for the whole third quarter is the best since the last quarter of 1920, while that for September is the best since November, 1920. During the period of wartime prosperity the number of failures was abnormally low.

### **Notes and Queries**

#### **Oil Burners for Furnaces.**

From G. F. Chapman, Linton, Indiana.

Kindly tell me who makes a dependable oil burner for use in warm air furnaces.

Ans.—Aetna Automatic Oil Burner, Incorporated, Providence, Rhode

Island; American Oil Burner and Boiler Manufacturing Company, 3830 North Kilbourn Avenue, Chicago, Illinois; Gill Manufacturing Company, 8300 South Chicago Avenue, Chicago, Illinois; Home Appliance Corporation, 2818 Locust Street, St. Louis, Missouri; Oliver Oil-Gas Burner Company, St. Louis, Missouri; Tiffany Oil Burner Company, 200 Broadway, Paterson, New Jersey; Wade-Hill Company, 2030 Pine Street, St. Louis, Missouri; Automatic Burner Corporation, 312 North May Street, Chicago, Illinois, and Edwin B. Tibb Oil Burner Company, 464 Parkside, Chicago, Illinois.

#### **Address of Royal Stove and Range Company.**

From Stove Dealers' Supply Company, 310 Chestnut Street, Milwaukee, Wisconsin.

We should like to know where the Royal Stove and Range Company is located?

Ans.—Greenville, Ohio.

#### **"Darling" Stoves and Ranges.**

From The J. E. Nye Company, Manchester, Iowa.

Can you tell us who makes the "Darling" line of stoves and ranges?

Ans.—Indiana Stove Works, Evansville, Indiana.

#### **Celluloid Specialty.**

From W. H. Dwight, Twin Falls, Idaho.

Will you please advise me who can make up for me a celluloid specialty?

Ans.—Dalton, Whittier and True, 2905 West Madison Street, Chicago, Illinois.

#### **Solid Copper Wire Conductor Strainers.**

From Conde Hardware Company, 32 West Third Street, Sterling, Illinois.

Please advise us who manufactures solid copper wire conductor strainers.

Ans.—C. G. Hussey and Company 224 North Jefferson Street, Chicago, Illinois, and The Fred J. Meyers Manufacturing Company, Hamilton, Ohio.

#### **Elastic Roofing Cements.**

From Backman Sheet Metal Works, 405 East Second Street, Des Moines.

We should like to know who makes elastic roofing cements.

Ans.—Clinton Metallic Paint Company, Clinton, New York; W. F. Webster Cement Company, Cam-

bridge, Massachusetts; Tucker Manufacturing Company, 17 East 137th Street, New York City; U. S. Gutta Percha Paint Company, 12-30 Dudley, Providence, Rhode Island; Barrett Company, 17 Battery Place, New York City; Armstrong Company, 226 Post Avenue, Detroit, Michigan; W. H. Colebrook's Sons, Syracuse, New York; William Connors Paint Manufacturing Company, Troy, New York; Federal Process Company, Cleveland, Ohio, and Pecora Paint Company, 4th and Sedgely, Philadelphia, Pennsylvania.

#### **Galvanizing Outfit.**

From Dubuque Steel Products Company, 455 Central Avenue, Dubuque, Iowa.

We should like to know who makes a small galvanizing outfit large enough to dip tanks 18 inches in diameter?

Ans.—Callender Soldering Process Company, 12 South Jefferson Street, Chicago, Illinois.

#### **Invalid Chair.**

From Louis Magin, 317 South Wyman Street, Rockford, Illinois.

Where can I get an invalid chair?

Ans.—The G. F. Child Chair and Wheel Company, 1753 West Van Buren Street; C. E. Marshall, 3449 Cottage Grove Avenue, and Thomas W. Philpott and Son, 706 East 47th Street; all of Chicago, Illinois.

#### **Tee Steel Casing Rings.**

From The H. S. Haslett Company, 405 South High Street, Columbus, Ohio.

Kindly inform us who makes tee steel furnace casing rings.

Ans.—Walworth Run Foundry Company, West 27th Street, and N. Y. C. and St. L. R. R., Cleveland, Ohio, and Kawneer Manufacturing Company, Niles, Michigan.

#### **Repairs for "Columbian Banner" Furnace.**

From L. J. Dockery Heating and Sheet Metal Works, 3615 Easton Avenue, St. Louis, Missouri.

Can you tell us who makes the No. 336 Columbian Banner warm air furnace, as we desire to secure repairs for it.

Ans.—This furnace is made by the Keeley Stove Company of Columbia, Pennsylvania, and you can secure repairs from The Northwestern Stove Repair Company, 20 West Lake Street, Chicago, Illinois.



## Small Tools Appear as Living Objects When Attractively Arranged in Smart Window Display.

*Here Are Some Good Suggestions in Window Display Making Which Are Worth Money to You.*

**S**MALL tool window displays are always attractive and in season. In the spring and summer building is always going on on the outside, while fall and winter construction work goes on inside.

In the accompanying window display we not only see the well appointed artistry of the trained win-

and blended very well with general color scheme of the window. Two easels covered with orange crepe paper carried a display of chisels and screwdrivers. These were placed on either side of the center and to the rear.

Saws, tools, hammers and hatchets were featured to good advantage,

attracted my attention the other day, but instead of using the traditional and time-honored broom upon which the witch was formerly transported through the air, this clever designer caught up with the trend of the times and placed the witch upon an electrical vacuum cleaner.

This was an original idea and



**Saws, Hammers, Hatchets and Locks Can Be Arranged Attractively and Well So as to Produce Profits, as Has Been Proved by Miss Edna L. Jenison, Who Designed the Above Window Display for Peterson Brothers, 7905 Third Avenue, Brooklyn, New York.**

dow display designer, but in addition the delicate and peculiarly discriminating touch of femininity. A good combination indeed. The display was arranged by Miss Edna L. Jenison for Peterson Brothers, Inc., 7905 Third Avenue, Brooklyn, New York. "It was sales-producing," says Miss Jenison in her comment.

In addition to the cut-outs and streamers of the "reason why" material, bright orange cards featured the tools carried. A strip of orange crepe paper, fluted on either side, formed a border around the window

and due credit is due the young woman who made it.

### *Think of It! Your Idea May Win \$50.*

The approach of Hallowe'en, the evening preceding All Saints day, traditionally devoted to merrymaking, has produced its customary crop of windows trimmed with black and yellow, including all manner of witches in quest of opportunities of discovering the future husband.

A window of the above nature

proves that there is always some new way of attractively presenting an old subject.

Put on that think cap of yours and burn a little of the ol' man's midnight "electricity." AMERICAN ARTISAN AND HARDWARE RECORD is offering \$100 in four cash prizes January 12, 1924, for the four best window displays submitted on or before that date.

A certain number of Honorable Mentions will also be given those competitors whose displays are of extraordinary merit, but do not



come within the range of the four prizes.

#### Rules Governing Contest.

The photograph, together with descriptions of how the window displays were arranged and the materials used may be sent by mail or express, charges prepaid, and must reach this office not later than January 12, 1924.

Each photograph and description must be signed by a fictitious name or device and the same name or device must be placed within a sealed envelope containing the real name and address of the contestant. This sealed envelope is to be enclosed with the photograph. Contestants may enter as many window displays as they desire.

AMERICAN ARTISAN AND HARDWARE RECORD reserves the right to publish all photographs and descriptions submitted in this competition.

A competition committee of three will be appointed, one of whom will be an expert window dresser and one an experienced hardware man. This committee will pass upon the merits of all photographs and descriptions received, without knowing the names or addresses of the senders, and will decide the winners of the contest.

#### *Pittsburgh Hardware Dealers Meet in Fort Pitt Hotel October 26.*

The regular monthly meeting of the Pittsburgh Hardware Dealers' Association was held at the Fort Pitt Hotel, Tenth Street and Penn Avenue, Friday, October 26, 7:30 p. m., according to program.

#### *Horace G. Reynolds, Well Known Wire Manufacturer, Passes On.*

Horace G. Reynolds, President of the Reynolds Wire Company of Dixon, Illinois, pioneer manufacturer in wire screen cloth in the middle west and former owner of the *Dixon Daily Leader*, died at his home in Dixon Sunday.

Mr. Reynolds was born on a farm in Chaumont, New York, and

began active life as a country school teacher. He had always been interested in the newspaper business and was at one time owner of the *Times* at Gouverneur, New York.

His widow, Mrs. Jane Lyon Reynolds, and two daughters, Mrs.

Douglas Harvey, wife of the Vice-President of the Reynolds Wire Company, and Mrs. John Gould Ralston, wife of the Secretary-Treasurer, both of Dixon, survive Mr. Reynolds. Funeral services were held from the home at Dixon.

## *Limited Period Price Guarantees a Legitimate Merchandising Aid.*

*Manufacturers, When Establishing Prices, Can Afford to Maintain Them for Definite Time, Bronson Tells Hardware Men at Atlantic City.*

THE guaranteeing of prices by manufacturers is a subject of much importance to hardware men. It is one of the problems demanding careful study and an early solution. In an effort to bring it before the visitors to American Hardware Manufacturers' Convention, Atlantic City, October 18, 1923, Lewis H. Bronson, of Bronson & Townsend Company, New Haven, Connecticut, gave a short survey of the situation with regard to the Price Guarantee for a Limited Period of Time as Related to Turnover.

Mr. Bronson's address, which was delivered before the Transportation Tools Group, October 18, is very concise and covers a good deal of ground in the short space of ten minutes allotted him.

#### **The Price Guarantee for a Limited Period of Time as Related to Turnover.**

The use of a guarantee as against a price decline is good or bad, based largely on its purpose and the way it is used. If the purpose is simply to throw back upon the manufacturer the burden of price declines, it is bad, because it leads to improper merchandising. If it is developed in a way, however, which forces careful purchasing on the part of the wholesaler and the retailer, and yet, by relieving them of a fear of loss due to a decline in price, enables them to concentrate all their energies on selling it is a good thing.

We gave serious consideration to this subject in the year following the signing of the armistice. You will remember that the Atlantic City convention in 1918 was held in December instead of October, on account of the influenza epidemic. The armistice had been signed and the result had been an unfavorable reaction in business. Everybody was pessimistic and afraid to go on. We were then trying to make plans for the next six months business, but were finding it difficult to get our customers to place their

orders as usual for their spring needs, and yet, if they didn't place them, we knew that when the spring business opened we could not give the service we desired to give.

We could not see at that time why business should not be reasonably good during the spring, and our purpose was to get our customers into a different frame of mind. At the time we were particularly interested in the spring lines. First, we interviewed some of the manufacturers, and we must confess that the majority of them told us they did not believe in guarantees and were not going to make any. We then started to reason out the chances of decline on these seasonal goods. For the most part the manufacturers of seasonal goods announce their prices in the fall. We make our purchases and take the goods into stock in the early winter and make deliveries to our customers in the early spring.

#### **Guaranteeing of Prices by Manufacturers a Legitimate Merchandising Aid.**

We reasoned it out this way: Any reputable manufacturer, having announced prices and having shipped us our goods during the winter, would not announce a decline in his prices along in February and March without taking care of the shipments which he had made us, knowing that we had not had time to turn our stock. If a decline were not made previous to the first of April, we could not conceive of any manufacturer announcing a decline during the height of the selling season which would be during April, May and June. Our conclusion, therefore, was that we were safe in telling our customers that if they would place their orders with us as usual for these spring goods, we would guarantee them as against the manufacturer's decline on the particular order in question up to the end of the selling season; namely, July 1.

Out of this has developed our idea that the guaranteeing of prices by the manufacturer as against his own decline for a definite period of time is a legitimate aid to merchandising. We do not believe that the manufacturer should be expected to rebate the wholesaler or the retailer when a reduction in price is made at the end of the period, but we do believe that a manufacturer in establishing prices can afford to maintain them for a limited length of time. In certain cases it may be for thirty days;

in other cases it may be sixty days. Perhaps the quarterly period of three months is a good average. Of course, on seasonal goods the guarantee should be for the season. As a matter of fact, in these last three or four years, where we have in each case guaranteed our seasonal goods in this way, we have in not a single instance had to rebate anything to our customers.

The trouble with the average retail merchant is that he is afraid of some possible loss. If we can give him the courage to go out and buy, even though it may be only enough for a limited length of time, with the assurance that he is going to have a certain definite period of time in which to sell before there is any chance of a decline, he becomes a better salesman. If the period of time allowed him is three months in which he is to turn his stock, he will almost automatically make his purchases on a 3-month basis or less, so as to end the period with as little stock on hand as possible.

#### Price Guarantee for Limited Period Good Thing.

On the other hand, when prices are on a reasonably well stabilized basis, a manufacturer can follow such a plan

as the following: On January 1 a price may be announced which this manufacturer says will not be lowered (you notice nothing is said about the privilege of advancing the price) for 90 days; at the end of 60 days, in other words March 1, the average manufacturer will know whether or not he is going to make a price change at the end of the quarter. If he sees no price change will be necessary, he can quietly send out word that when prices are announced on April 1, no decline will be made; this makes it unnecessary for either the wholesaler or the retailer in such cases to try to run down their stocks at that time during the third month of the quarter, in anticipation of a possible price reduction. Looked at in this way we believe that a price guarantee for a limited period is a good thing for all concerned.

There is not time in such a brief discussion to go into the details of our plan or any plan. Probably the plans would differ considerably anyway, because the problems in one line are different from the problems in another. Some of the manufacturers here have worked with us in the development of this idea, and it is my impression that in most cases they have found it worked out to their own advantage.

## Resale Price Selling Method Fair to Manufacturer, Distributor and Consumer.

*However, Sufficient Profit Must Be Allowed for Overhead, Says Alvin M. Smith, Before Hardware Men, Atlantic City, Oct. 18.*

**S**PEAKING before the members of the American Hardware Manufacturers' Association in convention at Atlantic City, New Jersey, October 17 to 19, Alvin M. Smith, Secretary-Treasurer of Southern Supply and Machinery Dealers' Association, very interestingly discussed some of the salient features of how the distributor views the manufacturer's guaranteed prices, and the manufacturer's resale prices as seen by the distributor.

#### How the Distributor Views Manufacturer's Guaranteed Prices.

While there may be some particular cases where it would seem unreasonable for the jobber to expect prices to be guaranteed, as a rule, he is helpless as to price protection or control, and the manufacturer having control, at least of the class of goods he manufactures, certainly would be willing to assume the attitude of wanting to protect his trade until such time as he has reason to believe that the goods have been disposed of.

There are many arguments pro and con on the question.

If the manufacturer makes it a practice to guarantee the price against decline for a specific period, it is rare that he reduces his price during that time, notwithstanding the fact that conditions

might arise which would seem to make it good business to reduce them. Certainly, the manufacturer could guarantee prices on seasonable products which must be purchased long in advance of the distributor's requirements, and such guarantee should cover these goods until the end of the season. If the distributor, at the end of the season, carries over, it is questionable whether the guarantee should cover such goods at the end of the season, for it must be assumed that the distributor knows his requirements and should purchase accordingly, and not penalize the manufacturer with a guarantee, in the event he has misguessed his needs.

The distributor could not be expected to purchase seasonable goods in large volume without protection. It would be a mighty nice thing if we could get all manufacturers to guarantee us prices against decline on everything.

Yet, this hardly could be considered a fair business burden to place upon the manufacturer, particularly on goods that are not seasonable in the distributor's stocks, but which are being sold generally at all times.

#### Does Not Believe in Blanket Contracts Guaranteeing Prices.

I am not in favor of blanket contracts guaranteeing prices for a period, as they encourage speculation, nor do I believe in contracts specifying greatly in excess of distributor's requirements and carrying a guarantee, as this also encourages speculation and develops price-cutting; because, if the distributor has not been able to sell the entire quantity specified in the contract in his own natural territory, he is in most cases prone to broadcast ruin-

ous prices outside his natural territory, disturbing other distributors, and frequently manufacturers as well.

Speculation in a merchandising business, such as the mill supply field, is not scientific and should not be indulged in.

Summing up, I am in favor of price guarantees on seasonable goods, and wherever the manufacturer wishes to dispose of production without piling at the mill, in which case it is only fair that the distributor should be protected, as he becomes, in such cases, an equal partner with the manufacturer in carrying the load.

But I am not in favor of guaranteed prices on staples that are not seasonable, nor of guarantees through blanket contracts and excessive tonnage contracts.

All the above upon the assumption that the legality of price guarantees is established.

#### Manufacturer's Resale Prices from the Distributor's Viewpoint.

So much has been said on this subject during the last ten years, and so little headway has been successfully made, that I am sure most manufacturers and jobbers are "fed up" on the subject, and would prefer forgetting it, until such time as the legality of resale prices has been fully established by the courts.

While the trade association, of which I am a member, has several times approved the principle of resale prices (and I am speaking upon the assumption that the distributor is in favor of resale prices), you must not take it for granted that all distributors in our Association are in favor of resale prices; for there is difference of opinion on this subject in the ranks of the distributors, as well as in the ranks of the manufacturers.

#### Resale Price Prevents Ruinous Competition.

Personally, I am in favor of the proposition, for the reason that I believe it prevents ruinous competition in the sale of a manufactured product, which I assume any legitimate manufacturer doing business on a high plane of sales ethics agrees with.

In adopting a resale price plan, the average manufacturer forgets the distributor's overhead, and this is the main weakness that I see in the plan. The majority of manufacturers suggesting this plan seem to figure on allowing the distributor about 15 per cent margin of profit on his sale prices, when items in the mill supply business cannot be turned over sufficiently often to bring a profit on such a margin. To sell goods on a 15 per cent margin requires a turnover reasonably often, with a volume sufficiently large in the turnover to have the distributor show a sufficient net after overhead costs are taken into consideration, and to justify his handling a sufficient stock of the resale article to make it pay.

A reference to the cost of distributor's business for 1922 shows thirty reputable houses in our Association, with an average cost of 18.92 per cent, without interest, and of 22.55 per cent, with interest. The average net profit of these houses was only 3.12 per cent. The significant fact in this statement is that seven houses in this group, whose annual business reached \$2,000,000, made a net profit of only 1.51 per cent; showing that, even with a greater turnover, it is not always easy to make a sufficient return.



So that a manufacturer favoring the resale price plan should, before putting it in operation, realize the necessity for knowing the distributor's overhead, so that whatever resale is settled upon will return the distributor an adequate profit.

#### Inability of Manufacturer to Enforce It, Weakness of Resale Plan.

The weakness of the resale price plan is the failure or inability of the manufacturer adopting it to enforce it. This, no doubt, is due to the feeling, on the part of the manufacturer, that under present varied decisions of the courts on the right of a manufacturer to establish and have maintained a resale, that his position, under the law, is so indefinite and vague that he does not care to assert his authority in the matter.

In the Mennen case, I believe, the court decreed that a manufacturer has the right to differentiate between the legitimate jobbing distributor and the retailer, or a group of cooperative retailers, and has stated that the jobbing distributor is not in the same class with the retailer and, as such, may be treated preferentially by the manufacturer.

From the language of other decisions, it would appear that some of the learned judges give the resale price plan no standing whatever. Naturally, doubt and fear must exist in the minds of the manufacturer, until this is cleared up.

A favorable feature of the resale price plan is that on such lines the distributor can sell such an article at a reduced selling expense, because, when the price of an article becomes fixed in the mind of the trade, orders are placed freely and openly, without fear of cut-throat competition. Naturally, the distributor can afford to push such articles harder and increase his volume, thus reducing the expense.

#### Some Distributors Think Uniform Prices Are Without Value.

As I said in the beginning, there are many distributors who are not in favor of the resale price plan, and for good reasons, from their standpoint. They do not believe that any good can be accomplished while distributors urge the resale price plan, and they feel that uniform prices are without value.

Competition brings the prices to a common level, where they remain until disturbed by causes either natural or artificial, and it is the artificial cause in which the public is interested. These distributors feel that the free law of supply and demand should control the sales price, and they are as strong in their views as those of us who favor the resale plan. Of course, the survival of the fittest in business, no doubt, is theoretically and practically correct. Yet, I feel that business has progressed to a plane where unfair competition or ignorant competition can best be taken care of by a system which would protect the ignorant and the weak. Do not misunderstand me and interpret this statement to mean that the distributor who favors the lowest possible price cost from the manufacturer, with the right to freely and openly make any sales price he sees fit, to be an ignorant or a weak distributor, for I do not refer to that class, but to that class that gets into every distributing business and, through lack of knowledge of the science of business, or the ability to sell at a profit, pirates the market with cut-throat competition, eventually lands on the rocks, and thus

injures the industry and the credit fabric at the same time; for all credit losses must be absorbed in the cost.

It is, of course, impossible to discuss this subject in all its phases in the ten minutes allotted to this discussion.

#### Resale Price Protects All Factors in the Chain.

Summing up, from my standpoint, the resale price is a scientific and eminently fair method of selling, for it protects the manufacturer, the distributor and the consumer; but it always must be borne in mind that in the first instance sufficient profit must be allowed to take care of overhead and leave a sufficient net return to the distributor. Otherwise, the

plan is neither fair nor successful; and there should be no weakness shown on the part of the manufacturer in enforcing the resale; being willing to investigate where necessary and to remedy the situation when it is proven that the contract is not being lived up to, for my experience has shown that the large majority of those manufacturers who have tried out the resale plan have not attempted to enforce it, and, as a result, naturally the distributor becomes discouraged and loses interest in the line, and looks for something similar on which a legitimate profit may be made.

All the foregoing is upon the assumption that the legality of a resale price is established.

## Townley Believes Decimal Pricing System Big Time and Labor Saver.

*Tells Hardware Men at Atlantic City Convention Advantages Far Outweigh Cost and Inconvenience of Installation.*

**I**N CONNECTION with the decimal pricing system, John M. Townley, of the Townley Metal & Hardware Company, Kansas City, Missouri, speaking before the members of the American Hardware Manufacturers' Association in convention at Atlantic City, New Jersey, October 17 to 19, 1923, gave some very constructive and helpful advice.

Mr. Townley said that in changing the method of pricing to the decimal system time and patience will be required; the system will necessitate changing some tools with which they work and the education of the clerks and salespeople. His remarks on the subject are as follows:

#### What John M. Townley Thinks of the Decimal Pricing System:

Hardware jobbers are conservative. They would rather be safe than sorry, so it is, therefore, natural that they should be slow about changing practices which have been in effect for years. They will want to take their time about working out any change in the nature of things which is going to cost them considerable money to accomplish. For it means that they must change their method of thinking and that they must make some changes in the tools with which they daily work; that is, their catalogues, cost books, price books, etc. For that reason they will progress slowly on this question of what is commonly called the decimal system, but which might be called more properly the unit system of pricing.

From the retailers' point of view, there seems to be no question but that the adoption of the unit system would be a great help and boon to them. There is, of course, in the minds of some retailers a feeling that this is a subterfuge for raising prices of merchandise or to ad-

vance costs, but this is an erroneous assumption, because the selling price of any article is going to be determined by its utility value, the supply and demand, competition, and other influences which have determined selling prices from time out of mind.

Some retailers may think that the wholesaler will take advantage of all of the half cents, with the result that the retailer will pay a little more for his merchandise; so, when any jobber attempts to introduce the unit pricing system, he must keep this thought in mind.

#### Adoption of Decimal Pricing System Will Require Time.

The adoption of the decimal or unit system cannot come over night. There are too many factors to be considered to accomplish this in a short time. It would be very nice for those who want to see the change if they had the power to say, "Well, now, let everybody start to use this on January 1 next." But that is an impossibility. There isn't any compunction about it. No one has a right to make a rule that will say we must figure on this or that system. Everybody is free to figure as he wants to, just so he figures correctly. The desire of the majority of the people to use the decimal system will be the pressure that will gradually bring it about. Those men who are interested in the adoption of the unit system will have to keep on working year in and year out on those factors in a business world which are opposing its adoption and the men who have not thought anything about it. There are those who prefer to do it the old way.

However, if it can be proved that the decimal system contains points of merit which will be an improvement on the old method, then it is a question of educating the people to see its advantages, and as I see it, a sure accomplishment in the next three or four years.

#### Three Steps Necessary in Adopting the System to Insure Success.

There are three necessary steps in the adoption of the unit system. First, is the education of the wholesaler's house force and salesmen to think in terms of units, instead of terms of other items of



measure, as dozen, quires, gross, etc. The salesmen and house force must learn to use the army system, which is a straightforward method of putting down the items that you want and drawing a line after it, which may stand for Each, or Only. The salesmen must not think in dozens, he must think in units. Instead of writing up an order for one-half dozen tubs, he must write up his order for six tubs. Now this first step can be adopted by any jobber as soon as he has made up his mind that he is going to adopt the complete unit system. Of course, if he has in mind some particular period that he is going to issue a new catalogue, he might well start off with the new catalogue, but that really isn't necessary.

The second step, which he can also begin at once, will take him some time to work out. That is the changing of the system of pricing from the dozen or gross system to the unit or decimal system. He cannot change everything at once. But as he makes his weekly changes, he can work in his unit system of pricing. All items that are now priced by the dozen can be priced each, or those that are priced by the gross can be priced by the 100. He does not have to wait for any manufacturer to change his system or for all manufacturers to change their system. It doesn't make any difference on what basis he buys. His cost clerk can readily figure out a selling price based on a unit system, and when this is once done, the labor of all the clerks or people, both in his house and in the retail store, is reduced.

As the wholesaler is changing some prices every week, it will be but a comparatively short time until a large percentage of his catalogue has been priced on the unit system.

The third and last step will take longer to accomplish. That is the almost universal adoption by manufacturers of the unit system in billing and accompanying it with the decimal system in packing.

I think it would be entirely practical for any jobber to make up his mind now that January 1 next his force is going to think in units. And that starting in immediately his pricing department will price in units. If this is done, he could figure that by January 1, 1925, he would have his complete catalogue priced on a unit basis and then another year, say by January 1, 1926, he could reasonably hope a large percentage of the manufacturers will have adopted both a decimal system in billing and in packing.

#### Has Already Introduced System In His Own Business with Success.

I do not make this suggestion simply on theory, but can highly recommend it from our own experience, as we started to do on August 27. We have met practically no criticisms and have received many expressions of appreciation on the part of the retailers who, when they get an invoice of this kind, can immediately write down their cost and selling prices with no loss of time.

The second stage, that is, the pricing our catalogue on a unit basis, is working out satisfactorily and quite rapidly, and there is one point that comes to mind and that is the looks of an invoice and the plainness with which those items that cannot be written up as units stand out. With us a line or a dash following the item indicates a unit measure to be translated by the word "Only," instead of writing out the word only, which would

take four strokes on a typewriter, we use one stroke and make a dash.

Under this plan such items in the hardware line as bundles of iron, kegs of nails, pairs of shears, pairs of butts, etc., stand out distinctly on the order.

As for experience with the third phase, we are not bothering about that, because that is up to the manufacturers. We should like to see some manufacturer of wood screws pack them on the same basis as bolts are packed, namely, 100 in a package. Until such time we probably will make screws an exception and handle them on the gross basis, pricing them by the gross.

### Coming Conventions

Western Retail Implement and Hardware Association, Missouri Theater Building, Kansas City, January 15, 16, 17, 1924. H. J. Hodge, Secretary-Treasurer, Abilene, Kansas.

The West Virginia Retail Hardware Association Convention and Exhibit, Huntington, West Virginia, January 15 to 18, 1924. James B. Carson, Secretary-Treasurer, 1001 Schwind Building, Dayton, Ohio.

Mountain States Hardware and Implement Association Convention, City Auditorium, Denver, Colorado, January 22-24, 1924. W. W. McAlister, Secretary-Treasurer, Boulder, Colorado.

Kentucky Hardware and Implement Association, Louisville, January 22-25, 1924. J. M. Stone, Secretary-Treasurer, 202 Republic Building, Louisville.

Indiana Retail Hardware Association, Inc., Convention and Exhibition, Cadle Tabernacle, January 29, 30, 31, February 1, 1924. G. F. Sheely, Secretary, Argos.

Illinois Retail Hardware Association, Hotel Sherman, Chicago, Illinois, February, 1924. Leon D. Nish, Secretary-Treasurer, Elgin, Illinois.

Nebraska Retail Hardware Association, Lincoln, Nebraska, February 5 to 8, 1924. George H. Dietz, Lincoln Nebraska, Secretary-Treasurer.

Wisconsin Retail Hardware Association Convention and Exhibition, Milwaukee Auditorium, February 6, 7, 8, 1924. George W. Kornely, Manager of Exhibits, 1476 Green Bay Avenue, Milwaukee. P. J. Jacobs, Secretary-Treasurer, Stevens Point.

Michigan Retail Hardware Convention and Exhibition, Grand Rapids, February 12, 13, 14, 1924. Karl S. Judson, Exhibit Manager, 248 Morris Avenue, Grand Rapids. A. J. Scott, Secretary, Marine City, Michigan.

Iowa Retail Hardware Association, Des Moines, Iowa, February 12, 13, 14 and 15, 1924. A. R. Sale, Secretary-Treasurer, Mason City, Iowa.

The Pennsylvania and Atlantic Seaboard Hardware Association, Incorporated, Convention and Exhibition at the Philadelphia Commercial Museum, Philadelphia, Pennsylvania, February 12, 13, 14 and 15, 1924. Sharon E. Jones, Secretary-Treasurer, Wesley Building, Philadelphia.

Ohio Hardware Association, Convention and Exhibition, Cincinnati, Ohio, February 19, 20, 21 and 22, 1924. James B. Carson, Secretary, 1001 Schwind Building, Dayton, Ohio.

New York Retail Hardware Association Convention and Exhibition, February 19, 20, 21, 22, 1924. Headquarters,

McAlpin Hotel, and exhibition at Seventy-first Regiment Armory. John B. Foley, Secretary, 412-413 City Bank Building, Syracuse, New York.

New England Hardware Dealers' Association Convention and Exhibition, Mechanics' Building, Boston, February 20, 21, 22, 1924. George A. Field, Secretary, 10 High Street, Boston, Massachusetts.

North Dakota Retail Hardware Association Convention and Exhibition, Municipal Auditorium, Fargo, February 20, 21, 22, 1924. C. N. Barnes, Secretary, Grand Forks.

Michigan Sheet Metal and Roofing Contractors' Association, February 25 to 28, 1924, Hotel Kerns, Lansing. T. E. Eiderle, Secretary, 1121 Franklin Street, S. E., Grand Rapids, Michigan.

Missouri Retail Hardware Association Convention and Exhibition, Marquette Hotel, St. Louis, February 26, 27 and 28, 1924. F. X. Becherer, Secretary, 5106 North Broadway, St. Louis.

Minnesota Retail Hardware Association Convention and Exposition, St. Paul Auditorium, February 26, 27, 28, 29, 1924. C. H. Casey, Secretary, Jordan, Minnesota.

South Dakota Retail Hardware Association and Exposition, Coliseum Building, Sioux Falls, March 4, 5, 6, 7, 1924. C. H. Casey, Secretary, Jordan, Minnesota.

California Retail Hardware Implement Association Convention and Exhibition, Civic Auditorium, San Francisco, March 18, 19, 20, 21, 22, 1924. LeRoy Smith, Treasurer, 112 Market Street, San Francisco.

Southeastern Retail Hardware and Implement Association, composed of Alabama, Florida, Georgia and Tennessee, Convention and Exhibition, Atlanta, Georgia, May 27, 28, 29, 1924. Walter Harlan, Secretary, 701 Grand Theater Building, Atlanta.

Hardware Association of the Carolinas Convention, Wrightsville Beach, North Carolina, June 17, 18, 19, 1924. T. W. Dixon, Secretary-Treasurer, 717-718 Commercial Bank Building, Charlotte, North Carolina.

### Retail Hardware Doings

#### Indiana.

Tom Frater of the firm of Frater and Karr, hardware, at Walkerton, has purchased the interests of his partner, Mr. A. L. Karr.

The hardware store of Grant Deal at Tangier has been destroyed by fire.

#### Iowa.

A. J. Nelson has sold his hardware store at Calmar to J. H. Wessels of Bancroft.

#### Michigan.

H. H. Bryan and Son have sold their hardware business at Charlotte to B. J. Fowler and his son Rice, of Potterville.

#### Ohio.

The hardware firm of Miner and Company, which has been located in Montgomery, Michigan, for the past fifteen years, has purchased another stock of goods at Bryan.

#### Wisconsin.

The hardware firm of LaBudde and Bratz at Weyauwega has dissolved partnership, and will hereafter be known as the E. E. Bratz Hardware Company.

## Marriot Capitalizes on Statements of Satisfied Customers to Push Stove Sales.

*Finds Personal Reference the Best Adjunct to Advertisement of Store in Local Newspaper.*

USING personal references of customers is an excellent method of building good will and establishing a reputation for square dealing and good service. After all, what is retail selling if it is not rendering a service of utility to customers? The retailer who fails to realize that he is honor bound to render service soon finds himself on the shelf of discard where he right-

been used in the left-hand middle of the ad.

Through carelessness the proof-reader permitted the ad to appear with a lead protruding above the headline. This is sheer carelessness and as such, inexcusable. An incorrect use of the word "before" has been made in the second line of the reading matter. "Previous" would have been a better word to

for the creation of retailer interest and good will is working against vast odds, was the assertion of Fred Mason, Vice-President of the American Sugar Refining Company, New York, in a talk before members of the Advertising Club of Minneapolis and of the American Specialty Manufacturers' Association recently.

"If I were to apportion an advertising fund of one million dollars so that the greatest possible benefits would result, I should use from \$400,000 to \$500,000 in a trade paper campaign, using every trade paper in the country which covered the lines represented by my product," Mr. Mason said. "Owing to the reasonable rates asked by the trade press, this sum would make possible a very comprehensive campaign and would be the least expensive way of building good will and influencing the trade to an interest in my product. In fact, it is impossible to measure in terms of dollars the benefits which accrue to the manufacturer from the good will engendered for him by the trade press of the country," Mr. Mason added.

### Sales Department Must Hitch Up.

Of his hypothetical million the speaker said from \$400,000 to \$500,000 would be invested in daily paper advertising, \$200,000 in national magazines, \$400,000 to \$500,000 in trade journals and the remainder in advertising media of other kinds.

"You can't expect the maximum results unless you have your selling organization hitched up with your advertising campaign," Mr. Mason advised his auditors. "The one aids the other and the two together are many times as strong as either one individually. The trouble in too many cases is that the money is not properly expended or that the sales organization does not take advantage of the advertising and the expected results are not obtained. Then the advertiser blames the medium through which the campaign has been carried on."

A narrow mind is one that has not had wide experience.

## THAT'S SURE SOME OIL-STOVE

That is what one of our customers said to us the other day. The week before his wife had purchased from us an

### ALCAZAR OIL STOVE

In fact she was one of those women who thought that all oil stoves smoke and smell. We have convinced her along with over 400 other housewives at Baraboo and Devil's Lake, that there is only one real oil stove

--ALCAZAR--

Come in for demonstration any time

## MARRIOTT HARDWARE CO.

Third Street

Phone 55

Selling Stoves on Quality Basis.

fully belongs. Customers depend upon him to get the best obtainable at the price asked and when he does not do this he is violating his trust.

In the accompanying reprint from the Baraboo (Wisconsin) Republic we have a very good attempt to capitalize on the words of a satisfied customer. The ideas expressed in this ad are very good. The layout, however, could have been improved materially if a small cut had

use here. The fundamental idea of the ad is very good and with the few suggested changes would prove an A-1 piece of copy.

### Manufacturers Should Use Trade Papers, Says Fred Mason.

That the manufacturer who tries to build a substantial business without the use of the trade journals of the country in an advertising way



## Your Advertisements Are More Than Show Windows; Make Them Reflect the Ideals of the Store As Well.

*Services Rendered and Advantages and Conveniences to Be Had in Trading at Your Store Should Always Occupy a Prominent Place in Your Advertisements.*

It is the purpose of advertising to call the attention of possible buyers to the store, where they can see and inspect the articles which they need or which are not absolutely

demand the best that they can get for their money, whether or not they give a dollar's worth of service for a dollar in gold. Now, many dealers make the big mistake of try-

The man who stocks quality goods at the start and sticks to it, gives quality service and nothing else but is bound to win in spite of all opposition. He unconsciously builds a reputation for dependability which is bound to stand him in good stead in time of need.

The accompanying ad reprinted from the *Connersville, Indiana, News* is a crypt and concise way of driving the quality idea home. This is a very good ad for its purpose.

### *Are These Requirements Out of the Ordinary? How Many of Them Can You Fill?*

Wanted—A man for hard work and rapid promotion, who can find things to be done without the help of a manager and three assistants.

A man who gets to work on time in the morning and does not imperil the lives of others in an attempt to be first out of the office at night.

A man who is neat in appearance and does not sulk for an hour's overtime in emergencies.

A man who listens carefully when he is spoken to and asks only enough questions to insure the accurate carrying out of instructions.

A man who moves quickly and makes as little noise as possible about it.

A man who looks you straight in the eye and tells the truth every time.

A man who does not pity himself for having to dig in and hustle.

A man who is cheerful, courteous to everyone and determined to "make good."

This man is wanted everywhere. Age or lack of experience do not count. There isn't any limit, except his own ambition, to the number or size of the jobs he can get. He is wanted in every big business.

# Resolve

## To—

think more of Quality than expense when it comes to buying Hardware. Remember, the best is none too good in the matter of having the right Tools.

We thank you for your patronage and hope we may continue to serve you.

### Corner Hardware Store



essential and necessary to bare existence but which are constructed for additional convenience, pleasure and comfort.

In making purchases, most people

ing to build a permanent business on the price appeal exclusively. Poor Richard says: "Many have been ruined by buying great penny-worths."



## *Irregularity Continues to Dominate Price and Trade Movements; October Shows Largest Freight Traffic for Year.*

### *Non-Ferrous Metal Prices Follow Constantly Changing Aspect of European Affairs—Copper, Zinc and Tin Again React.*

**I**T WOULD almost seem that it had become fashionable to be pessimistic these days with regard to the business outlook. It is a case of mistaking caution for a depression, as the several conditions certainly warrant a constructive policy. Money is neither plentiful nor stringent; business is seeking to find the point of maximum consumption before going ahead; manufacturing, merchandising and financial leaders are handling the situation with skill and understanding; hand-to-mouth buying is being practiced; manufacturing activity continues at a healthy rate.

The Mid-Month Review of Business of the Irving Trust Company, New York, tells us that with only four exceptions, and each of these explainable by a holiday, every week since May 19 has witnessed a movement of American railroad freight traffic in excess of 1,000,000 cars. During the last week of September there was established the highest record in the country's history, namely, 1,097,274 cars. Since the beginning of the current year, 37,308,891 cars have been loaded with revenue freight as compared with 31,307,098 and 29,135,147 in the corresponding periods of 1922 and 1921. Despite the enormous freight movement this year the railroads are now reporting a small margin of surplus cars. The percentage of bad-order cars and locomotives seems to have been reduced to the minimum.

#### **Copper.**

Home consumers of copper have no incentive to buy under present conditions. Temporary buying is confined to the covering of mandatory requirements. Few consumers have enough confidence in the situ-

ation to increase obligations of the future. On the other hand producers are making no effort to sell on an unwilling market. To do so would further depress prices here. Electrolytic, however, is available at 12.75 cents delivered for almost any shipment over the next few months.

#### **Lead.**

The lead market is quiet, with an easier tone in the western market.

Offerings of October and November shipment are more general at 6.55 cents East St. Louis basis.

Though consumption continues at a good rate in nearly all the leading lines, buying is cautious and mainly for early requirements.

Quotations are for prompt, October and November shipment 6.52½ cents to 6.57½ cents St. Louis.

#### **Tin**

The price of spot Straits tin advanced ¼ cent, while futures declined ⅛ cent. The movement of prices are irregular.

The advance in the price of prompt Straits in the New York market is due to a concentration of stocks in two or three hands and sellers who were open for orders October 23 at 41.00 cents were on October 24 asking 41.25 cents.

It is a nominal market, however, and the price could be easily influenced by a little pressure in either direction.

The prices of Banka, Extra Refined and 99 per cent tin for prompt delivery have not been affected and the two first mentioned are quoted at 40.75 cents and the latter at 40.50 cents, or ½ cent and ¾ cent respectively below the price of Straits.

Future deliveries are easier and sales of Straits have been made at 40.62½ cents both for November

delivery and November shipment from the Straits.

#### **Zinc.**

The zinc market is slightly easier. Domestic demand is very slack.

It is not unlikely that operators and dealers may again show buying interest, as they did before at 6.20 cents to 6.25 cents, although the failure of the market to hold the last advance the moment London receded, has been discouraging.

Quotations at East St. Louis are 6.27½ to 6.32½ cents for Prompt, October, November and December.

#### **Bolts and Nuts.**

Concessions continue to appear in nut and bolt prices at Pittsburgh, producers all being hungry for what business comes out. This makes for a spasmodic buying rate. The quoted price levels, except in connection with nuts, are unchanged.

Hot pressed square and hexagon blank nuts are now quoted at \$4.25 off list, instead of \$4, although the latter price still applies on tapped nuts.

Cold punched square or hexagon blank tapped nuts are lowered to \$4 off list instead of \$3.75. An occasional carload order is noted and this applies likewise to rivets which are quotably unchanged at 2.75 cents to 3.00 cents base Pittsburgh.

A fair amount of business is being done in small rivets, although attractive orders carry the 65 and 10 per cent discount instead of 65 and 5 off.

#### **Sheets.**

Certain independent producers of sheets still lack business and are operating one week on the orders received the previous week or two. They are able to make more prompt deliveries than are obtainable from

## Terne Plate Specialists

*Since the beginning of the industry in this country.*

*Write for samples.*



## Our Brands

*shown here ranging from 40 to 8 pound have proven their unusual lasting qualities by years of actual service.*

**A** LARGE stock of all brands always carried in stock for immediate shipment. Also manufacturers of "Osborn Quality" Gutter and Conductor, 28 gauge being our standard

*Let us quote on your requirements.*

**THE J. M. & L. A. OSBORN CO., CLEVELAND**

*Sheet Metal Workers' and Furnacemen's Supplies*

## CORTRIGHT METAL SHINGLES.

*Shingles dipped individually in molten zinc—have a heavy coating on edges as well as sides. The dipping process coming AFTER the shingles have been stamped insures that this coating has not been damaged by the stamping operation. We also make shingles from tight-coated sheets and of tin. These tin shingles we paint either red or green.*

*We suggest, however, that for a really permanent job use Cortright hand-dipped shingles.*

**CORTRIGHT METAL ROOFING CO.**  
Philadelphia — Chicago

## DURABLE

*are*

## Inland Copper Alloy Sheets

**BLACK**

**GALVANIZED**

**BLUE ANNEALED**

**INLAND STEEL COMPANY**

38 South Dearborn St., Chicago

Works:

Indiana Harbor, Ind.  
Chicago Heights, ILL.

Branch Offices

Milwaukee St. Louis  
St. Paul

**Steel Ceilings**

**Side Walls and Cornices**

Only first quality material used  
Many neat designs of character.

*Write today for our complete catalog giving descriptions and prices.*

**THE W. J. BURTON CO.**

Junction Ave. and Federal St. and  
436 Penobscot Bldg. Detroit, Michigan



the leading interest. This creates market weakness in some directions, with a lowering of prices on one or two lines. The reduction has not exceeded \$1 or \$2 per ton on black sheets, and except in a few instances where stock of galvanized sheets have been sold at 4.75 cents, 4.90 cents, this has been the minimum available as a concession.

Incoming orders at the full market price to the American Sheet & Tin Plate Company are fair, although there is less pressure for deliveries. Its operations remain relatively high, around 88 or 89 per cent of capacity, although the general average would be 70 or 80 per cent since some of the independents in the Mahoning valley are down to 50 or 60 per cent.

After a full month of operating schedules with all men on the 8-hour day basis, several plants, including those of the American company, report increased production costs of \$1 or \$2 per ton, although all the facts pertaining to the increased rate will not be known until late in December or early in January.

Reports of shading by the smaller makers east of Chicago are heard, but the local makers assert this is having no effect upon them. Prices remain unchanged at 3.00 cents, Pittsburgh, for blue, 3.85 cents for black, and 5.00 cents for galvanized.

#### **Tin Plate.**

The tin plate market continues quiet as to actual turn-over, there being little activity. In fact, the market has been rather conspicuous for some time in presenting an appearance of quietness while the mills, nevertheless, showed they were well filled with business.

When order books were opened September 6th the business flowed in so smoothly that there did not seem to be much doing, but in a short time most mills found their prospective output was well taken.

It is remarked in that trade that not for a long while has market been so rigidly maintained as to price. The market is simply \$5.50

at the present time, and at no time recently has there been any real shading, there being little even by way of quantity differentials.

At the present time there does not seem to be much thought among buyers or sellers that the \$5.50 price will be changed either way. The mills assert they have a very narrow margin, but doubt whether if present general steel conditions continue an advance in tin plate would take well.

#### **Solder.**

Chicago warehouse prices on solder are as follows: Warranted, 50-50, 26.12½; Commercial, 45-55,

25.05, and Plumbers', 23.50, all per 100 pounds.

#### **Old Metals.**

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$16.00 to \$16.50; old iron axles, \$24.00 to \$24.50; steel springs, \$18.50 to \$19.00; No. 1 wrought iron, \$13.00 to \$13.50; No. 1 cast, \$16.75 to \$17.25, all per net tons. Prices for non-ferrous metals are quoted as follows, per pounds: Light copper, 8½ cents; light brass, 5 cents; lead 4¼ cents; zinc, 3½ cents, and cast aluminum, 15 cents.

## **Quietness in Pig Iron Market Interrupted by Occasional Sizable Tonnages.**

**Iron Changing Hands in Chicago at \$25—No. 2 Foundry, Birmingham, Now \$21—Some First Quarter Inquiry Coming.**

SOME improvement in the steel industry is noted in the mid-week reviews. The average of operations is about 71 per cent of capacity.

"Some expansion in automobile manufacture, sustained structural steel activity, and buying and definite order for Japan stood out in an otherwise featureless market," the Iron Age says. "In booking of finished steel the rate so far in October approaches 10 per cent better than for the same period in September."

"Much dependence for substantial revival of the steel market in the near future still is placed in the railroads," the Iron Trade Review says. "A growing number of negotiations from this source are going forward, and prospects for large orders to be placed soon are good. Building activity is more promising than was anticipated. Demands in other lines show a tendency to expand."

Quietness in the pig iron market at Pittsburgh was interrupted occasionally by an inquiry for a sizable tonnage.

Practically all northern pig iron changing hands in the Chicago district is going at \$25 Chicago. It is generally conceded this price could

be shaded, probably 50 cents, provided tonnage came before the market, but none has and prospects are dim. Numerous sales of 500-ton lots are reported.

The market is quotable at \$25 with impending weakness. Small sales of southern iron are reported at \$20, Birmingham. Some southern sellers are asking \$21, others \$22. The range still is \$20 to \$21, Birmingham.

Southern competition is being met to the south of Chicago, but actual southern sales are negligible. Silvers, charcoal and low phosphorous irons are inactive and unchanged in price.

With the minimum quotation on pig iron now at \$21, for No. 2 foundry, and the total of small lot sales nearer production, more hopefulness is noted in the Birmingham district.

Locally the melt is no larger but more iron is moving out of the district and last quarter inquiry is heavier than for several weeks. Some first quarter inquiry has been received but southern furnaces cannot quote for that delivery.

Business is practically all for spot delivery and mostly from the Middle West.



## Quality & Beauty IN ART METAL CEILINGS AND SIDE WALLS

**QUALITY**—only first quality material is used in making FRIEDLEY-VOSHARDT ART METAL CEILINGS AND SIDE WALLS.

**BEAUTY**—is necessary for the complete and lasting satisfaction of your customers.

Having one of the finest equipped sheet metal plants in the country and employing only skilled workers enables us to serve you with **QUALITY** goods having the **BEST DESIGNS**.

Write Today for Catalog No. 33

### FRIEDLEY-VOSHARDT Co.

OFFICE  
733-737 S. Halsted St.

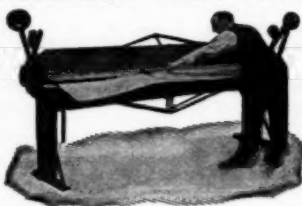
FACTORY  
761-771 Mather St.

CHICAGO, ILLINOIS

## NEW CHICAGO ROTARY SLITTING SHEAR

Used in Connection with a Cornice Brake

Guaranteed  
to Cut  
24-Gauge  
Iron



Will Split  
a Sheet  
or  
Cut Strips  
at  
Any Angle

Write now for information

### MAPLEWOOD MACHINERY CO.

Dealers in New and Used Machinery  
2547-49 Fullerton Ave. CHICAGO, ILL.

## H O O K S

ALL KINDS—ALL SIZES  
FOR BRICK OR WOOD

BERGER HOOKS are widely used throughout the trade. They are made of the best malleable iron and are high grade in every respect.

Try some on your next job.

We can also furnish **SOLID BRASS HOOKS**.

Write for catalog showing complete line

### BERGER BROS. CO.

229 to 237 Arch Street, PHILADELPHIA, PA.

Warehouses and Factory: 100 to 114 Broad Street



Have you seen  
THE BIG VENT  
WITH THE GREAT PULL?

## ÆOLUS VENTILATOR

RIGID — STRONG — DURABLE

Made in all sizes of all metals. They are reasonably priced and we make quick shipments.

### ÆOLUS DICKINSON CO.

Vent Makers Since 1888

3332-3352 South Artesian Ave.

CHICAGO, ILLINOIS

Telephone: Lafayette 1862-1863

# AREX

MORE PROFIT—LESS WORK

AREX Ventilators are built in tremendous quantities and are therefore low in price in spite of excellent design and high grade construction. Correct design gives them three times the capacity of ordinary ventilators. Extensive advertising build large sales—ata better profit for you.

### AREX COMPANY

J. C. Kernchen, Pres.

1581 Conway Building

Chicago



THE ORIGINAL SIPHONAGE VENTILATOR

# "THE STANDARD"

## Ventilator



IS of the rotatable type and swings absolutely free in the slightest draft. The construction is scientifically correct and unusually strong. It works perfectly in all kinds of weather and handles 50% more air than stationary ventilators of equal size. Order from your jobber. Write for our catalog and prices today.

Manufactured by

### STANDARD VENTILATOR CO.

LEWISBURG, PA.

## C. G. HUSSEY & CO.

Rolling Mills and Office, PITTSBURGH, PA.

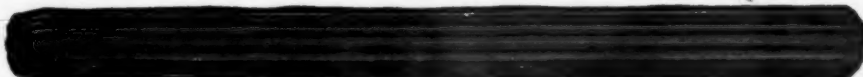
Manufacturers of

SHEET COPPER, BOTTOMS, ROLL COPPER, TINNED AND POLISHED COPPER, NAILS, SPIKES, RIVETS, CONDUCTOR PIPE, EAVES TROUGH, ELBOWS, SHOES, MITRES, ETC.

Branch Warehouses in New York, Chicago and St. Louis

## Plecker's Galvanized Eave Trough and Corrugated Expanding Conductors

Made of  
Keystone  
Copper Bearing  
Steel



Costs no more  
Lasts Longer  
Therefore  
Cheaper

### CLARK-SMITH HARDWARE CO.

PEORIA, ILLINOIS

# Current Hardware and Metal Prices.

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

## METALS

### PIG IRON.

Chicago Foundry..	25 00
Southern Fdy. No.	
2	26 01 to 27 01
Lake Sup. Char-	
coal	30.04
Malleable	25 00

### FIRST QUALITY BRIGHT TIN PLATES.

	Per Box
IC 14x20 112 sheets	\$19 45
IX 14x20	14 05
IXX 14x20 56 sheets	17 57
IXXX 14x20	18 12
IC 14x20	18 65
IX 20x28 112 sheets	27 50
IXX 20x28	23 85
IXXX 20x28 56 sheets	23 15
IC 20x28	17 20
IX 20x28	18 25

### TERNE PLATES.

	Per Box
IC 20x28, 40-lb. 112 sheets	\$25 60
IX 20x28, 40-lb.	23 50
IC 20x28, 30-lb.	21 80
IX 20x28, 30-lb.	24 70
IC 20x28, 25-lb.	20 80
IX 20x28, 25-lb.	23 70
IC 20x28, 20-lb.	18 30
IX 20x28, 20-lb.	21 15
IC 20x28, 15-lb.	17 05
IX 20x28, 15-lb.	15 75
IC 20x28, 8-lb.	14 05

### COKE PLATES.

Cokes, 80 lbs., base, 20x28.	\$14 05
Cokes, 90 lbs., base, 20x28.	14 39
Cokes, 100 lbs., base, 20x28.	14 65
Cokes, 107 lbs., base, IC	
20x28	15 10
Cokes, 135 lbs., base, IX	
20x28	17 15
Cokes, 155 lbs., base, 56	
sheets	9 30
Cokes, 175 lbs., base, 56	
sheets	10 10
Cokes, 195 lbs., base, 56	
sheets	10 95

### BLUE ANNEALED SHEETS.

Base	per 100 lbs. \$3 50
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### ONE PASS COLD ROLLED BLACK.

No. 18-20	per 100 lbs. \$4 50
No. 22-24	per 100 lbs. 4 55
No. 26	per 100 lbs. 4 60
No. 27	per 100 lbs. 4 65
No. 28	per 100 lbs. 4 70
No. 29	per 100 lbs. 4 75

### GALVANIZED.

No. 16	per 100 lbs. \$5 10
No. 18-20	per 100 lbs. 5 25
No. 22-24	per 100 lbs. 5 40
No. 26	per 100 lbs. 5 55
No. 27	per 100 lbs. 5 70
No. 28	per 100 lbs. 5 85
No. 30	per 100 lbs. 6 35

### BAR SOLDER.

Warranted.	
50-50	per 100 lbs. \$26 12½
Commercial.	
45-55	per 100 lbs. 25 05
Plumbers	per 100 lbs. 23 50

### ZINC.

In Slabs	\$6 32½
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### SHEET ZINC.

Cask lots, stock, 100 lbs.	11 00
Less than cask lots, 100 lbs.	11 50

### BRASS.

Sheets, Chicago base	21c
Mill Base	18c
Tubing, brazed, base	26c
Wire, base	18½c

### COPPER.

Sheets, Chicago, base	21c
Mill base	20¼c
Tubing, seamless, base	22½c
Wire, No. 9 & 10 B. & S. Ga.	
Wire, No. 11, B. & S. Ga.	20¼c

### LEAD.

American Pig	\$7 57
Bar	8 60

Sheet.	
Full Coils	per 100 lbs. 10 75
Cut Coils	per 100 lbs. 11 75

### TIN.

Pig Tin	per 100 lbs. 43½c
Bar Tin	per 100 lbs. 45½c

## HARDWARE, SHEET METAL SUPPLIES, WARM AIR HEATER FITTINGS AND ACCESSORIES.

### ADZES.

Coopers'.	
Barton's	Net
White's	Net

### AMMUNITION.

Shells, Loaded, Peters.	
Loaded with Black Powder 18%	
Loaded with Smokeless Powder	18%
Winchester.	
Smokeless Repeater	
Grade	20 & 4%
Smokeless Leader	
Grade	20 & 4%
Black Powder	20 & 4%
U. M. C.	
Nitro Club	20 & 4%
Arrow	20 & 4%
New Club	20 & 4%
Gun Wads—per 1000.	
Winchester 7-8 gauge 10&7½%	
" 9-10 gauge 10&7½%	
" 11-28 gauge 10&7½%	

### ASBESTOS.

Paper up to 1/16	6c per lb.
Railboard	6½c per lb.
Millboard 3/32 to 1/2	6c per lb.
Corrugated Paper (250 sq. ft. to roll)	\$8.00 per roll

### AUGERS.

Boring Machine	40&10%
Carpenter's Nut	50%
Hollow.	
Stearns, No. 4, doz.	\$11 50
Post Hole.	
Iwan's Post Hole and Well	35%
Vaughan's, 4 to 9 in.	\$15 60

### AXES.

First Quality, Single	
Bitted (unhandled, 3 to 4 lb., per doz.	\$14 00
Good Quality, Single	
Bitted, same weight, per doz.	13 00

### BARB, CROW.

Steel, 4 ft., 18 lb.	\$ 80
Steel, 5 ft., 18 lb.	1 40
Pinch bars.	
5½ ft., 24 lb.	1 60

### BARB, WRECKING.

V. & B. No. 12	\$0 24
V. & B. No. 24	0 43
V. & B. No. 324	0 57
V. & B. No. 30	0 48
V. & B. No. 330	0 63

### BITS.

All Vaughan and Bushnell.	
Screw Driver, No. 30, each	\$ 27
Screw Driver, No. 1, each	16
Reamer, No. 80, each	41
Reamer, No. 100, each	41
Countersink, No. 13, each	30
Countersink, Nos. 14-15 each	37

### BLADES, SAW.

Wood.	
Atkins 30-in.	
Nos.	4 40 26
	\$3 90 \$9 45 \$5 40

### BLOCKS.

Wooden	45%
Patent	45%

### BLOW TORCHES (See Firepots).

### BOARDS.

Stove.	
Crystal, 33"	Per Doz. 23 90

Wash.	
No. 780, Banner Globe	
(single)	per doz. \$5 25
No. 652, Banner Globe	
(single)	per doz. 6 75
No. 801, Brass King	
	per doz. 8 25
No. 860, Single—Plain	
Pump	6 25

### BOLTS.

Carriage, Machine, etc.	
Carriage, cut thread, ½x6 and sizes smaller and shorter	50-5%
Carriage sizes, larger and smaller and shorter	40-10%
Machine, ½x4 and sizes smaller and shorter	50-10%
Machine, sizes larger and longer than ½x4	50-2½%
Stove	70-5%

### BRACES, RATCHET.

V. & B. No. 444 3 in.	\$4 54
V. & B. No. 232 3 in.	3 89
V. & B. No. 111 3 in.	3 55
V. & B. No. 11 3 in.	3 03

### BRUSHES.

Hot Air Pipe Cleaning.	
Bristle, with handle, each	\$0 85
Flue Cleaning.	
Steel Only, each	\$1 25

### BURRS.

Copper Burrs only	40%
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### BUTTS.

Steel, antique copper or dull brass finish—case lots—3¼x3¼—per dozen pairs	\$3 48
4x4	4 74

Heavy Bevel steel inside sets, case lots—	
per dozen sets	\$ 80
Steel bit keyed front door sets, each	2 00
Wrought brass bit keyed front door sets, each	4 00
Cylinder front door sets, each	8 50

### CEMENT, FURNACE.

American Seal, 5 lb. cans, net	\$ 45
" 10 lb. cans, "	80
" 25 lb. cans, "	2 00
Asbestos, 5 lb. cans	45
Pecora	per 100 lbs. 7 51

### CHAINS.

Sher. Steel Safety Chain.	
500-ft. coil, per ft.	.02
100 to 500 ft., per ft.	.02½
Less than 100 ft., per ft.	.03
Iron Jack Chain.	
Box (12 yds.)	.45

### CHIMNEY TOPS.

Iwan's Complete Rev. & Vent.	30%
Iwan's Iron Mountain only	35%
Standard	30 to 40%

### CHISELS.

Cold.	
V. & B. No. 25, ¼ in., each	\$0 24
V. & B. No. 25, ½ in., each	41
Diamond Point.	
V. & B. No. 55, ¼ in.	0 21
V. & B. No. 55, ½ in.	0 48

Firmer Bevelled	
Round Nose.	
V. & B. No. 65, ¼ in.	0 29
V. & B. No. 65, ½ in.	0 40
Socket Firmer.	
V. & B. No. 50, ¼ in.	0 31
V. & B. No. 50, ½ in.	0 57

### CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers	List less 35-40%
Yankee, for Yankee Screw Drivers	\$6 00

### CLAMPS.

Adjustable.	
No. 100, Door (Stearns)	doz. \$23 00
Carpenters'.	
Steel Bar..List price plus 30%	

Hose.	
Sherman's brass, ¼-inch	per doz. \$0 48
Double, brass, ¼-inch, per doz.	1 20

### CLINKER TONGS

Front Rank, each	\$1 75
Per doz.	1 85

### CLIPS.

Damper.	
Acme, with tail pieces,	
per doz.	\$1 21
Non Rivet tail pieces,	
per doz.	21

### COPPERS—Soldering.

#### Pointed Roofing.

3 lb. and heavier	per lb. 40c
2½ lb.	45c
2 lb.	48c
1½ lb.	55c
1 lb.	60c

### CORD.

No. 7 Std. per doz. banks	\$10 45
No. 8 " " " "	12 00

### CORNICE BRAKES.

Chicago Steel Bending.	
Nos. 1 to 6 B.	10%

### COUPLINGS, ROSE.

Brass	per doz. \$3 21
-------	-----------------

### CUT-OFFS

Kuehn's Korrekt Kutoffs:	
Galv., plain, round or cor. rd.	
Standard gauge	40%
26 gauge	10%

### DAMPERS.

"Yankee" Hot Air.	
7 inch, each 20c, doz.	\$1 75
8 " " " "	2 40
9 " " " "	3 75
10 " " " "	4 00

Smoke Pipe.	
7 inch, each	\$ 31
8 " " "	40
9 " " "	48
10 " " "	50
12 " " "	60

Reversible Check.	
8 inch, each	\$1 50
9 " " "	1 70

### DIGGERS.

Post Hole.	
Iwan's Split Handle (Eureka)	
4-ft. Handle	per doz. \$14 00
7-ft. Handle	per doz. 26 00
Iwan's Hercules pattern,	
per doz.	14 00

### DRILLS.

V. & B. Star, 12-inch Length.	
¼, 5/16 and ¾, each	31
¾, each	36
1, each	54
1½, each	81
V. & B. Star, 18-inch Length.	
5/16 and ¾, each	33
¾, each	45
1, each	65
1½, each	1 08

### EAVES TROUGH.

Milcor	
Galv. Crimpedge, crated	75%

### ELBOWS—Conductor Pipe.

Milcor	
Galv., plain or corrugated,	
round flat	
Crimp. Std. gauge	65%
26 Gauge	40%
24 Gauge	10%

Square Corrugated.	
Milcor	
Standard gauge	45%
26 gauge	30%

Fortico Elbows.	
Standard Gauge Conductor Pipe,	
plain or corrugated.	
Not nested	70 & 5%
Nested solid	70 & 5%

### ELBOWS—Stove Pipe.

1-piece Corrugated. Uniform.	Doz.
6-inch	\$1 45
6-inch	1 60
7-inch	2 10
Special Corrugated.	Doz.
6-inch	\$1 45
7-inch	1 75





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4201 Wrightwood Ave., CHICAGO, ILL.

REQUIRES ONLY HEAT

Sample for Test  
Upon Request



**BUY THE BEST  
NO. 71  
DOUBLE NEEDLE FIRE POT**

The No. 71 Improved Double Needle Fire Pot has all of the latest up-to-date features that give the user added service. The intensely hot blue flames burn from both sides of the burner tubes, quickly heating a pair of large coppers and melting a pot of metal. It burns without noise and is wind and weather proof. No. 71 is the hottest Fire Pot made. Jobbers supply at factory prices. Get a catalogue.

**CLAYTON & LAMBERT MFG. CO.**  
10635 Knodell Ave., DETROIT, MICH. U.S.A.

No. 71 Fire Pot  
List Price Each, \$37.25  
Ask for Discount



**Something Worth While**

Our No. 61 Coil Fire Pot is the best and most Reliable Coil Fire Pot made. Tank is made of heavy gauge, seamless drawn steel, tinned inside and out, rust proof, fitted with extra large funnel and filler plug with dust proof cap. Every mechanic should have one of these fire pots.

Jobber supply at factory prices.  
Send for free catalog.

**ASHTON MFG. COMPANY**  
Newark, N. J. U. S. A.

No. 61 Red-Hot Fire Pot



**TREADLE SHEAR**

This TREADLE GAP SHEAR is made in all standard sizes for No. 14 and lighter gauge sheets. With it, sheets can be squared, trimmed or slit.

We make a complete line of shears, punches and bending rolls, all sizes for hand or belt drive. Write for Catalog "S."

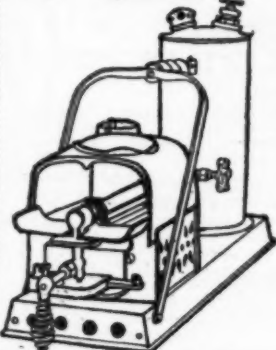
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Arrive Buffalo - 7:30 A. M.	Arrive Cleveland - 7:30 A. M.

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Uniform, Collar Adjustable.	
5-inch	Doz. \$3 80
6-inch	Doz. 3 10
7-inch	Doz. 3 60

## WOOD FACES—50% off list.

FENCE.	
Field Fence	60%
Lawn	53%

## FILES AND RASPS.

Heller's (American)	65-5%
American	65-5%
Arcade	60 & 10%
Black Diamond	50-5%
Eagle	60-10%
Great Western	60 & 10%
Kearney & Foot	60 & 10%
McClellan	60 & 10%
Nicholson	50-14%
Simonds	60%

## FIRE POTS.

Ashton Mfg. Co.	
Complete line	
Firepots and Torches	52%
Otto Berns Co.	
No. 1 Furn. Gasolene with large shield, 1 gal.	\$ 6 75
No. 2 Furn. Kerosene, 1 gal.	15 12
No. 10 Brazier, Kerosene or Gasolene, 10 gals.	47 52
No. 5 Torch, Gasolene or Kerosene, 1 pt.	7 92
No. 33 Torch, Gasolene, 1 quart	5 40
No. 56 Torch, Gasolene, 1 pt.	4 05

Clayton & Lambert's.  
East of west boundary line of Province of Manitoba, Canada, No. Dakota, So. Dakota, Nebraska, Kansas, Oklahoma, Amarillo, San Angelo and Laredo, Texas  
West of above boundary line. 48%

Geo. W. Diener Mfg. Co.	En.
No. 02 Gasolene Torch, 1 qt.	\$ 5 55
No. 0250, Kerosene or Gasolene Torch, 1 qt.	7 50
No. 10 Tinner's Furn.	12 60
Square tank, 1 gal.	12 60
No. 15 Tinner's Furn.	12 60
Round tank, 1 gal.	12 60
No. 21 Gas Soldering Furnace	3 60
No. 110 Automatic Gas Soldering Furnace	10 50

Double Blast Mfg. Co.	
Gasolene, Nos. 25 and 35.	60%
Quick Meal Stove Co.	
Vesuvius, F.O.B. St. Louis (Extra Disc't. for large quantities)	30%
Chas. A. Hones, Inc.	
Buzzer No. 1	\$ 9 00
" " 2	12 00
" " 22	13 50
" " 42	15 00
" " 43	19 00

## FREEZERS—ICE CREAM.

Peerless and Alaska	
1 quart	\$2 95
2 quart	3 45
3 quart	4 10
White Mountain	
1/2 quart	\$3 50
1 quart	4 90
2 quart	5 70

## GALVANIZED WARE.

Pails (Competition), 8 qt.	\$1 89
10-qt.	2 15
12-qt.	2 35
14-qt.	2 65
Wash tubs, No. 1.	\$6 75
No. 2.	7 25
No. 3.	8 75

## GARAGE DOOR HARDWARE.

Stanley	All net
Gauges.	
Marking, Mortise, etc.	Nets
Wire.	
Disston's	25%

## GIMLETS.

Discount	65% and 10%
GLASS.	
Single Strength, A and B.	all sizes 33 & 35%
Double Strength, A, all sizes	34%

## GREASE, AXLE.

Fraxers	
1-lb. tins, 36 to case, per case	\$ 4 75
2-lb. tins, 24 to case, per case	7 30
5-lb. tins, 12 to case, per case	7 20
10-lb. tins, per dozen	10 40
25-lb. tins, per dozen	13 80
50-lb. tins, per dozen	19 80

## HAMMERS, HANDLED.

All V. and B.	Each, net
Blacksmiths' Hand, No. 6, 36-oz.	\$1 00

Engineers' No. 1, 26-oz.	1 60
Farrier's, No. 7, 7-oz.	93
Machinists', No. 1, 7-oz.	78

Nail.	
Vanadium, No. 41, 26-oz. each	1 45
Vanadium, No. 41 1/2, 16-oz. each	1 45

V. & B., No. 11 1/2, 16-oz. each	1 04
Garden City, No. 11 1/2, 16-oz. each	87

Tinner's Riveting, No. 1, 3-oz. each	82
Shoe, Steel, No. 1, 12-oz. each	65

Tack.	
Magnetic.	
No. 5, 4-oz. each	72

## HAMMERS, HEAVY.

Farrier's	30%
Mason's	
Single and Double Face	50%

## HANDLES.

Axe.	
Hickory, No. 1...per doz.	4 00
Hickory, No. 2...	3 00
1st quality, second growth	6 00
Special white, 2nd growth	5 00

Chisel.	
Hickory, Tanged, Firmer	
Assorted	per doz. 55c
Hickory, Socket, Firmer	
Assorted	per doz. 70c

File	per doz. \$1 20
Hammer and Hatchet.	
No. 1 per doz.	\$0 90
Second growth hickory, per doz.	1 50

Soldering.	
Per doz.	\$2 40

## HANGERS.

Conductor Pipe.	
Milcor Perfection Wire	25%

Eaves Trough.	
Steel hangers	30%
Triple Twist wire	10%
Milcor Eclipse Wire	20%
Milcor Triplex Wire	15%
Milcor Milwaukee Extension	15%
Milcor Steel (galv. after forming) List plus	12 1/2%
Milcor Selflock E. T. Wire, List plus	40%

## HASPS.

Hinge, Wrought, with staples, Net	
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## HATCHETS.

V. and B. Supersteel.	Each
Broad, No. 1, 24-oz.	\$1 43
Half, No. 1, 15-oz.	1 25
Half, No. 3, 37-oz.	1 37
Claw, No. 1, 19-oz.	1 31
Flooring, No. 1, 20-oz.	1 43
Shingling, No. 1, 17-oz.	1 20
Lathing, No. 1, 14-oz.	1 20
Lathing, No. 2, 17-oz.	1 25

Vanadium Steel.	
Half, No. 62, 22-oz.	\$1 52
Underhill Pattern Lathing, 9 row, 19-oz.	2 29

## HINGES.

Heavy Strap, in Bundles.	
4 inch, dozen prs.	\$1 12
5 " " " "	1 57
6 " " " "	1 93
8 " " " "	2 21

Extra Heavy T in Bundles.	
4 inch, dozen prs.	\$1 74
5 " " " "	1 85
6 " " " "	2 21
8 " " " "	2 57

## HOES.

Garden	Net
--------	-----

## HOOKS.

Box.	
V. and B. No. 9, each	\$0 26
Conductor.	
Milcor	
"Direct Drive" Wrought Iron for wood or brick	15%

Cotton.	
V. and B. No. 3, each	24
Hay.	
V. and B. No. 1, each	26

## Bar Meat.

V. and B. No. 26, 1/2", each	09
V. and B. No. 25, 1/2", each	16

## Screw Meat.

V. and B. No. 2, per gro.	6 50
Butchers' "B."	
V. and B. No. 5, each	03
V. and B. No. 3, each	11

## HOSE.

	Per Ft.
1/2-in. 3 ply molded	3 1/2c to 13 1/2c
1/2-in. cord	3 1/2c to 10c
1/2-in. wrapped	13 1/2c

## HUMIDIFIERS.

"Front-Range" Automatic.	
In single lots	50%
In lots of 10 or more	50-5%
In lots of 25 or more	50-10%
Vapor pans, etc., each	50%

## IRONS.

Sad.	
Genuine Mrs. Potts, nickel plated, per set	\$1 55
Asbestos No. 70, per set	2 10
Asbestos No. 100, per set	3 30
E. C. Stearns.	
No. OA Corner, doz. sets	\$2 50
No. OB " "	3 75

## KNIVES.

Butcher.	
Beechwood Handles, 6-inch blade	25%
Beechwood Handles, 7-inch blade	25%
Beechwood Handles, 8-inch blade	25%

Cooper's Hoop	25%
Drawing.	
Standard	25%
Adjustable	25%
Barton's Carpenters'	25%

Hay.	
Iwan's Solid Socket	25%
Heath's	25%
Iwan's Sickle Edge	25%
Iwan's Imp'd Serrated	25%

Hedge.	
Challenge	25%
Disston's No. 1	25%

Putty.	
Common	25%
Lander's	25%

Scraping.	
Beech Handles	25%
Lander's	25%

## KNOBS.

Door.	
Mineral	per doz. \$2 00
Porcelain	2 00
Jet	2 00

## LADDERS.

Step.	
Common, per ft.	28c
Common, with Shelf, add 10c	
IXL	34c
Challenge, 6 to 9 ft.	55c
10 to 16 ft.	60c
Kant-Break, per lineal ft.	75c

## LANTERNS.

	Per doz.
Monarch tin, hot blast	\$ 3 25
Diets No. 2, cold blast	13 00
Best tubular	8 25
Competition lanterns No. 6 tubular	6 90

## LAWN MOWERS.

12-inch	\$5 20
16-inch	5 85

Ball Bearing.	
4 blade, adjustable bearing.	
14"	\$7 50
16"	7 30

## LEATHER BELTING.

From No. 1 Oak Tanned Butts.	
Extra heavy, 18-oz.	35%
Heavy, 16-oz.	40%
Medium, 14 1/2-oz.	40%
Light, 13-oz.	50%

## LEATHER LACING.

Cut, strictly No. 1	45%
---------------------	-----

## LEVELS.

Disston, No. 28 Asst.	\$22 05
" No. 15, 20 in., each	1 32
" No. 22, 24 in., each	3 48
" Shafting, 6 in.	13 30
" " 8 in. gr. glass	24 20
" No. 1 Asst.	5 75
" No. 2 Asst.	13 40
" 24-36 in., each	1 02
" 36-60 in., each	1 00

## LIFTERS.

Stove Cover.	
Coppered	per gro. \$4 00
Alaska	" 4 75

## LOCKS.

Barn Door.	
No. 60 Stearns'.	per doz. \$11 00
No. 80	" 20 00

## MALLET.

Carpenters'.	
Fibre Head No. 2, per doz.	\$12 00
" No. 3	15 50
" No. 3 1/2	20 50

Round Hickory	
per doz.	\$3 00—5 00
Tinner's.	
Hickory	per doz. \$3 25

## MATS.

Door.	
National Rigid	5 & 10 & 5%
Acme Steel Flexible	50%

## MITRES.

Galvanized steel mitres, and caps, end pieces, outlets	30%
Milcor	
Galv. one piece stamped	40%

## MOPS.

Cotton, Star (Cut Ends).	
Pounds 12' 15' 18' 24'-3-oz.	
Per doz. \$4 00 4 35 5 50 7 00	
Enterprise	16 1/2%
Parker	50 & 5%

## NAILS.

Cut Steel	\$4 70
Cut Iron	4 70
Wire.	
Common	3 80
Cement Coated	3 40

## NETTING, POULTRY.

Galvanized before weaving	45-10%
Galvanized after weaving	45%

## NIPPERS.

Nail Cutting.	
V. & B. No. 30	78c
Double Duty.	
V. & B. No. 60	76c

Hoof.	
Heller's	40 & 10%
V. & B. No. 52, each	\$2 25

## NOZZLES.

Hose.	
Magic	per doz. \$9 50
Diamond	" 8 75

## OILERS.

Chase Pattern.	
Brass and Copper	10%
Zinc Plated	40 & 5%

Railroad.	
Brass	20 & 5%
Coppered	50 & 5%

Steel.	
Copper Plated	70 & 5%

## OPENERS.

Delmonico	per doz. \$1 20
Never Slip	" 65
Crate.	
V. & B.	per doz. \$7 25—11 00

## Make Your Own Elbows, Any Size in Two Minutes, with this Machine

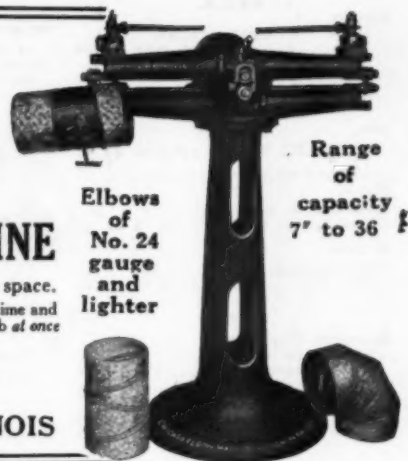
Here is the Most Remarkable Machine ever made for the Sheet Metal Worker—just take your straight pipe—fasten the form or jig to it and in two minutes you have your 3 or 4 piece adjustable elbow all ready for use and any size you want.

### PURNELL ELBOW EDGING AND CUTTING MACHINE

We can't begin to tell you details about the design, construction and equipment of this machine in this space. It is simple and sound and constructed of the very best materials—both installers and manufacturers are using it to save time and labor. It does away with a large stock for the installer and enables him to make his adjustable elbows any size for each job at once when he needs them.

Write today for circular giving complete description and price.

**CHICAGO ELBOW MACHINE COMPANY**  
810 North Boulevard OAK PARK, ILLINOIS



## SAMSON HAND PUNCH

RETAIL PRICE

**\$3.00**



Perforates cardboard, leather and paper up to 1/8". Thru untempered metal up to 20 gauge.

Handles Interchangeable Punches and Dies as Illustrated

Great Demand—Nationally Advertised

Write for Prices and Catalog

**THE MACHINE APPLIANCE CORPORATION**  
351 JAY STREET BROOKLYN, N. Y.



Hundreds Installed in Six U. S. Navy Yards and Arsenals.

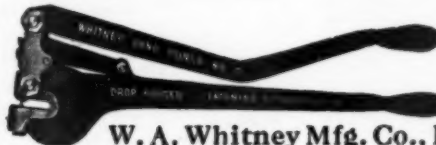
Best by Test of Thirteen Years Over 20,000 in use

Simplest Construction, Fewest Parts, Easiest Operated and Changed. Made in 4 sizes.

No. 2 Punch—Capacity 5/16 thru 1/4 Iron. Length 23 inches.

Only Portable Channel Iron Punch on Market. Capacity 1/4 thru 1/2 Iron. Punches to center of 4 inch Channel Iron, with 1 1/2 inch flanges.

All parts interchangeable with No. 3 Punch. No. 3 Tinner's Punch—Capacity 1/2 thru 18 gauge.



No. 1 Punch—Capacity 1/4 thru 1/2 Iron.

Ask your Jobber, or write us.

**W. A. Whitney Mfg. Co., Rockford, Ill.**

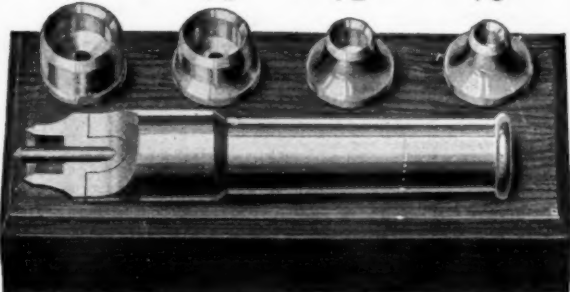
## TINNERS' HOLLOW PUNCH

7/8

3/4

1/2

3/8



Write today for descriptive circular giving sizes and prices

**WHITNEY METAL TOOL COMPANY** 93 Forbes Street Rockford, Illinois

## CHICAGO STEEL CORNICE BRAKES

STANDARD OF THE WORLD

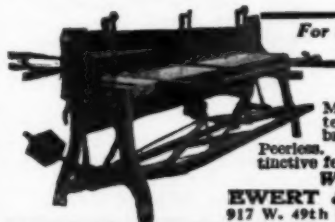


THE BEST BRAKE FOR ALL PURPOSES Most Durable, Easiest Operated, Low in Price Made in All Lengths and to Bend All Gauges of Metal. Over 15,000 in use.

WRITE FOR PARTICULARS

**DREIS & KRUMP MFG. CO., 2915 S. Halsted Street, CHICAGO**

Please Mention  
**AMERICAN ARTISAN AND  
HARDWARE RECORD**  
When writing to advertisers



For Perfect Cutting, Durability and Strength  
**PEERLESS STEEL  
SQUARING SHEARS**

Made in all sizes, to cut any gauge of material. Foot or power treadle. No more breaking or twisting of treadles if you use a Peerless. You should know all about the many distinctive features of these STEEL Shears.

Write for Catalog today.

**EWERT & KUTSCHEID MFG. CO.**  
917 W. 49th Place CHICAGO, ILL.



Send for catalog today

## VIKING SHEAR

Compound LEVER Handle — Removable Blades

A child can work them

**VIKING SHEAR CO., Erie, Pa.**



PAISLS.	
Cream.	
14-qt. without gauge.	
.....per doz.	\$9 50
18-qt. without gauge.	
.....per doz.	11 00
20-qt. without gauge.	
.....per doz.	11 75

Sap.	
10-qt., IC Tin....per doz.	\$4 00
12.....	5 50

Stock.	
Galv. qts. 14 16 18 20	
Per doz. \$9 75 10 75 12 75 14 50	

Water.	
Galvanized qts. 10 12 14	
Per doz. ....\$5 75 6 50 7 25	

PASTE	
Asbestos Dry Paste:	
100-lb. barrel .....	\$15 00
100-lb. barrel .....	8 00
35-lb. pail .....	3 25
10-lb. bag .....	1 00
5-lb. bag .....	55
2½-lb. cartons .....	30

FINGERS.	
All V. & B.	
Carpenters', cast steel.	
No. .... 6 8 10 12	
Each \$0 43 \$0 52 \$0 61 \$0 71	
Blacksmiths', No. 10.....	\$0 64

PIPE.	
Conductor.	
"Interlock" Galvanized.	
Crated and nested (all	
gauges) .....	60-20%
Crated and not nested	
(all gauges) .....	60-15%
Square Corrugated A and B and	
Octagon.	
20 Gauge .....	60-10%
22 " .....	60-10%
24 " .....	60-10%
26 " .....	60-10%

"Interlock."	
Crated and nested (all	
gauges) .....	60-7½%
Prices for Galvanized Toncan	
Metal, Genuine O. H. Iron, Lyon-	
more Metal and Keystone C. B.	
on application.	

Stove.	
Per 100 joints.	
20 gauge, 5 inch E. C.	
nested .....	\$17 00
20 gauge, 6 inch E. C.	
nested .....	18 00
20 gauge, 7 inch E. C.	
nested .....	19 00
22 gauge, 5 inch E. C.	
nested .....	15 00
22 gauge, 6 inch E. C.	
nested .....	16 00
22 gauge, 7 inch E. C.	
nested .....	18 00
20 gauge, 5 inch E. C.	
nested .....	12 00
20 gauge, 6 inch E. C.	
nested .....	14 00
20 gauge, 7 inch E. C.	
nested .....	16 00
T-Joint Made up.	
6-inch..... per 100	\$40 00

Furnace Pipe.	
Double Wall Pipe and	
Fittings .....	33½%
Single Wrtl Pipe, Round	
Pipe Fittings .....	33½%
Galvanized and Back	
Iron Pipe, Shoes, etc....	33½%
Milcor Galvanized .....	40%

PLANES.	
Stanley Iron Bench.....Net	

PLIERS.	
(V. & B.)	
Nut, No. 2, each.....	\$2 50
" No. 5, each.....	64
" No. 25, each.....	69
Gas, No. 7, each.....	55
" No. 8, each.....	61
" No. 12, each.....	87
Linna or Crimping.	
No. 25, each.....	64
Buttons Pattern.	
No. 6 each.....	61
No. 8 each.....	74
Double Duty, No. 106.....	50

POINTS, GLAZIERS'.	
No. 1, 2 and 3.....per doz. pkgs.	65c

POKERS, STOVE.	
Wrtl Steel, str't or bent.	
.....per doz.	\$9 75
Nickel Plated, coil	
handles .....	1 10

POKERS, FURNACE.	
Each .....	\$9 50

PULLEYS.	
Furnace Tackle.....per doz.	\$9 50
Per gross .....	6 00
" Screw (en-	
cased) ...per doz.	\$9 55
Ventilating Register.	
Per gross .....	\$9 00
Small, per pair.....	0 30
Large, per pair.....	0 50

PUNCHES.	
Machine.	Each.
V. & B., No. 11-13, 1½x6.	\$9 19
V. & B., No. 30, ¾x9.....	27
V. & B., No. 10, ¾x10.....	29
V. & B., No. 1-6, ¾x8.....	12
Center.	
V. & B., No. 50, ¾x4.....	\$9 14
Belt.	
V. & B., No. 101-103.....	\$9 24
V. & B., No. 108-109.....	32
V. & B., No. 25, asst.....	3 80

Samson Line.	
No. 1 Hand	Doz. lots or
	less .....
No. 2 Hand	3 doz. lots
	.....Less 40 & 5%
No. 4 Hand	6 doz. lots or
	more.....Less 50%

No. 3 Bench	Less than doz.
	lots.....Less 25%
	Doz. lots or
	more.....Less 40%
Extra Punches and Dies for	
Samson:	
No. 1 Hand	Less than doz.
	lots.....Less 25%
No. 2 Hand	Doz. lots
	.....Less 33½%
No. 4 Hand	3 doz. lots
	.....Less 40%
No. 3 Bench	6 doz. lots
	or more
	.....Less 40 & 10%

PUTTY.	
Commercial Putty, 100-lb.	
kits .....	\$3 55
QUADRANTS.	
Malleable Iron Damper.....	10%

FLOOR REGISTERS AND BORDERS.	
Cast Iron .....	20%
Steel and Semi-Steel.....	33½%
Baseboard .....	33½%
Adjustable Ceiling	
Ventilators .....	33½%

FLOOR REGISTERS AND BORDERS.	
Register Faces—Cast and Steel	
Japanned, Bronzed and Plated.	
4x6 to 14x14.....	33½%
Large Register Faces—Cast,	
14x14 to 35x42.....	60%
Large Register Faces—Steel,	
14x14 to 35x42.....	65%

ROOFING.	
Per Square	
Best grade, slate surf. prep'd	\$1 85
Best talc surfaced.....	2 20
Medium talc surfaced.....	1 50
Light talc surfaced.....	95
Red Rosin Sheeting, per ton	\$72 00

ROPE.	
Cotton.	
Shal.	
1st Quality, base. 13½c to 14½c	
No. 2 .....	12½c
Manila.	
1st Quality standard	
brands .....	16½c
No. 2 .....	15½c
Hardware Grade, per lb.....	13½c

SAWS.	
Butchers'.	
Atkins No. 2, 14-in.....	\$12 75
" No. 2, 18-in.....	14 30
" No. 7, 16-in.....	15 85
" No. 2, 22-in.....	15 92
" No. 7, 20-in.....	18 05
" No. 7, 24-in.....	20 20
" No. 7, 28-in.....	22 35

Compass.	
Atkins No. 2, 10-in.....	\$ 5 45
" No. 10, 10-in.....	5 80
" Blades, No. 2, 10-in.	3 25
" " No. 2, 10-in.	3 30
Cross-Cut.	
Atkins No. 221, 4 ft.....	\$3 03
" No. 221, 6-ft.....	4 45
" No. 221, 8-ft.....	6 07

Hand.	
Copper Burrs only.....	30%
" No. 30, 20-in.....	21 70
Hand and Rip.	
Atkins No. 54, 20-in.....	\$19 50
" No. 54, 24-in.....	24 40
" No. 53, 16-in.....	18 10
" No. 53, 20-in.....	22 90
" No. 53, 24-in.....	26 60
" No. 53, 28-in.....	31 45
" No. 53, 30-in.....	34 15

Keyhole.	
Atkins No. 1, complete..	\$3 10
" No. 2, complete..	3 70

Miter Box.	
Atkins No. 1, 4x20.....	\$32 65
" No. 1, 5x22.....	38 00
" No. 1, 6x22.....	42 30

Pruning.	
Atkins No. 20, 12-in....	\$ 3 45
" No. 10, 16-in....	18 15

Wood.	
Atkins No. 202.....	\$ 7 19
" No. 218.....	8 75
" No. 908.....	15 50
" No. 1509.....	16 55

SCRAPERS.	
Box.	
No. 6, six blades each....	25c
Hog.	
No. 6, each.....	25c
Floor (Stearns).	
No. 10, each.....	\$11 50

SCREEN DOOR HINGES.	
Cast Iron .....	gross \$13 00
Steel .....	9 50

SCREWS.	
Wood.	
F. H. Bright .....	30%
R. H. Blued .....	73%
F. H. Jap'd .....	74%
F. H. Brass .....	76%
R. H. Brass .....	74%

Sheet Metal.	
No. 7, ¼x ¼, per gross.	\$9 55
No. 10, ¼x3/16, per gross.	75
No. 14, ¼x ¼, per gross.	90

SCREW DRIVERS.	
Uncle Sam Standard Head.	
2 inches, each.....	\$ 45
5 inches, each.....	52
8 inches, each.....	68
12 inches, each.....	1 02

Uncle Sam Insulated Head.	
3 inches, each.....	\$ 49
5 inches, each.....	57
8 inches, each.....	76
12 inches, each.....	1 14

SETS.	
Nail.	
V. & B.	
No. 100, in cardboard	
boxes .....	doz. \$1 55
No. 100, in wooden boxes.	
.....doz.	1 58
No. 30, assorted.....doz.	39
No. 5, in cardboard boxes.	
.....doz.	1 28
No. 5, in wooden boxes.	
.....doz.	1 30

Rivet.	
V. & B.	
Farmers' .....	\$9 10
Tanners' 3-4 .....	0 40
00-0 .....	0 80

Saw.	
Atkins No. 10.....per doz.	\$3 30
" No. 12.....	6 30

SHEARS.	
Per Doz	
Nickel Plated, Straight, 6"	\$12 50
" " " 7"	14 85
" " " 8"	16 80
Japanned, Straight .....	11 00
" " " 7"	12 40
" " " 8"	13 80

SHEARS, TINNERS' & MACHINISTS'.	
Viking .....	\$22 50

Lennox Throatless.	
No. 18 .....	35%
Shear blades.....	10%
(f.o.b. Marshalltown, Iowa.)	
Peerless Steel Squaring.	
Foot Power.	
No. 1—30", 18 ga. cap.....	15%
No. 2—36", 18 ga. cap.....	15%
No. 4—52", 18 ga. cap.....	15%
No. 10—120", 22 ga. cap.....	15%
No. 4A—52", 16 ga. cap.....	15%

Cast Iron Foot Power.	
No. 01, 30", 18 ga. cap.....	15%

Power Driven.	
(No. 100 Series, 2 Shaft Drive.)	
No. 142—42", 18 ga. cap.....	15%
(No. 200 Series, 2 Shaft Under-	
neath Drive.)	
No. 242—42", 14 ga. cap.....	15%
(No. 300 Series, 3 Shaft Under-	
neath Drive.)	
No. 342—42", 10 ga. cap.....	15%
No. 372—72", 10 ga. cap.....	15%
(No. 500 Series, 3 Shaft Under-	
neath Drive.)	
No. 596—96", 10 ga. cap.....	15%
(No. 600 Series, 3 Shaft Under-	
neath Drive.)	
No. 6120—120", 3/16" cap.....	15%

SHINGLES.	
Per Square	
Zinc (Illinois) .....	\$15 00

SHOES.	
Milcor.	
Galv. Std. Gauge, Plain or	
corg. round flat crimp.....	65%
26 gauge round flat crimp.....	40%
24 gauge round flat crimp.....	10%
Conductor .....	65%

SHOVELS AND SPADES.	
Coal.	
Hubbard's.	
No. A B C D	
1 \$16 00 15 10 14 45 13 70	
2 16 25 15 50 14 85 14 10	
3 16 75 16 00 16 25 14 40	
4 17 10 16 25 16 60 14 35	

Post Drains & Ditching.	
Hubbard's.	
Size A B C	
14" .....	\$17 15 \$16 40 \$15 45
16" .....	17 50 16 75 16 00
18" .....	17 85 17 10 16 35
20" .....	18 20 17 45 16 70
22" .....	18 55 17 80 17 05

Alaska Steel.	
D-Handle .....	per doz. \$3 50
Long Handle .....	3 00

SIFTERS.	
Genuine Hunters, doz.....	\$2 50

SKATES.	
Ice, Men's and Boys'.	
Key Clamp—rocker—bright	
finish .....	\$ 75
Key Clamp—rocker—nickel	
finish .....	1 10
Key Clamp—rocker — pol.	
steel .....	1 20
Key Clamp—Hockey .....	1 35
Skate outfits .....	4 75

Women's and Girls'.	
½ Key Clamp—rocker.....	\$1 31
¾ " " " " " " " " " " " "	1 35
Ice Skate outfit .....	5 00

Roller.	
Ball Bearing—Boys' .....	\$1 55
Ball Bearing—Girls' .....	1 45

# FEDERALITE FINISHES



## White Enamels That Possess Lasting Qualities

**W**HEN it comes to selling your customers White Enamel you have to choose your lines carefully if you are to give the satisfaction demanded. It is common for White Enamels to turn **yellow**, to **crack** and to **lose luster**.

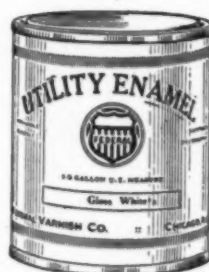
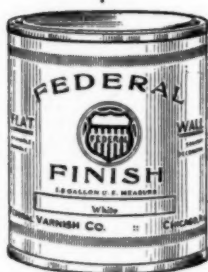
Federalite and Federal White Enamels and Flat White Finishes are all made to meet individual and exact requirements.

With the Federal complete line in stock you can serve your trade with their particular needs—make good profits and give satisfaction.

The reason why Federal Enamels possess lasting qualities is that we pay particular attention to small but important details in making Federal Enamels as well as using only high quality ingredients.

Federalite Coaters and Oil Stains also have special service features that make them superior products.

Let us send you descriptive catalog giving full details—also our dealer helps and prices.



## Federal Varnish Company

2837-55 Irving Park Blvd.

CHICAGO, ILLINOIS



**SNIPS, TINNERS'.**

Clover Leaf	.....40 & 10%
National	.....40 & 10%
Star	.....50%
Milcor	.....Net

**SQUARES.**

Steel and Iron	.....Net
(Add for bluing, \$3.00 per doz. net)	
Mitre	....."
Try	....."
Try and Bevel	....."
Try and Mitre	....."
Fox's	.....per doz. \$6.00
Winterbottom's	.....10%

**STAPLES.**

Blind.	
Barbed	.....per lb. 21c @ 22c
Butter, Tub	....." 16 @ 19c
Fence—	
Polished	.....per 100 lbs. \$5 45
Galvanized	....." 6 15
Netting.	
Galvanized	.....per 100 lbs. \$6 54
Wrought.	
Wrought Staples, Hasps and	
Staples, Hasps, Hooks and	
Staples, and Hooks and	
Staples	.....50 & 10%
Extra heavy	.....35%

**STONES.**

Axe.	
Hindustan	.....per lb. New Nets
More Grite	....." "
Washita	....." "
Emery.	
No. 126	.....per doz. New Nets
Oil Mounted.	
Arkansas Hard	
No. 7	.....per doz. New Nets
Arkansas Soft.	
Washita No. 717	....." "
Oil—Unmounted.	
Arkansas Hard per lb. New Nets	
Arkansas Soft.	
Lily White	....." "
Queer Creek	....." "
Washita	....." "
Seythe.	
Black Diamond per gro. New Nets	
Crescent	....." "
Green Mountain	....." "
LaMolle	....." "
Extra Quinine	....." "
bog	....." "
Red End	....." "

**STOPS, BENCH.**

No. 10 Morrill pat-	
tern	.....per doz. \$11 00
No. 11 Stearns pat-	
tern	....." 10 00
No. 15 Smith pat-	
tern	....." 7 00

**STOPPERS, FLUE**

Common	.....per doz. \$1 10
Gem, No. 1	....." 1 10
Gem, flat, No. 3	....." 1 00

**STRETCHERS.**

Carpet.	
Bullard's	.....per doz. \$3 90
Excelsior	....." 5 25
Malleable Iron	....." 70
Perfection	....." 6 30
King	....." 4 50
Wire.	
O. S. Elwood, No. 1 per doz. Nets	
O. S. Elwood, No. 2	....." "

**SWIVELS**

Malleable Iron	.....per lb. \$0 10
Wrought Steel	.....per gro. 4 50

**TACKS.**

Bill Posters' 6-oz. 25-lb. boxes	
per lb	.....15c
Upholsterers' 6-oz. 25-lb.	
boxes, per lb.	.....15 1/2c

**TAPES, MEASURING.**

Asses' Skin	.....List & 40%
-------------	-----------------

**THERMOMETERS.**

Tin Case	.....per doz. 80c & \$ 1 25
Wood Backs	....." 2 00 & 12 00
Glass	....." 12 00

**TIES.**

Bale.	
Single Loop, carload	
lots	.....75 & 7%
Single Loop, less than	
car lots	.....70 & 15%

**TRAPS.**

Mouse and Rat.	
Sure Catch Mouse Traps	.....\$ 2 10
Vim Mouse Traps	....." 2 10
Short Stop Mouse Traps	.....1 80
Wood Choker Mouse	
Traps, 4 hole	.....10 25
Per Doz.	
Sure Catch Rat Traps	.....\$0 90
Dead Easy Rat Traps	.....1 00
Packed in One Bushel Band Stave	
Baskets.	
List per Bushel	
Sure Catch Mouse Traps	
(360 Traps)	.....\$ 5 25
Short Stop Mouse Traps	
(360 Traps)	.....4 50
Sure Catch Rat Traps (54	
Traps)	.....3 60
Short Stop Rat Traps (54	
Traps)	.....3 15
Assorted Mouse and Rat Traps.	
List per Bushel.	
Sure Catch (216 Mouse	
Traps and 26 Rat Traps)	.....\$4 90
Short Stop (216 Mouse	
Traps and 26 Rat Traps)	.....4 25

**TROWELS.**

Cement.	
Atkins No. 6	.....\$19 50
No. 9	.....25 50

**TWINE.**

White Cotton.	
Eureka, 4-ply	.....per lb. 30c
Jute.	
3-ply and 6-ply Bale Lots	.....22 1/2c

**VALLEY.**

Milcor	.....60%
Galv. formed or roll	.....60%

**VENTILATORS.**

Standard	.....30 to 40%
----------	----------------

**VICES.**

No. 700 Hand.	
Inches	.....4 1/2 5 5 1/2
Doz.	.....\$11 15 13 00 14 85
No. 701.	
In.	.....4 5 6
Doz.	.....\$11 15 13 00 16 70
No. 1, Genuine Wentworth.	
Noiseless Saw	.....per doz. 9 25
No. 3, Genuine Wentworth.	
Noiseless Saw	.....per doz. 12 75
No. 500, All Steel Folding	
Saw	.....per doz. 16 00

**WASHERS.**

Over 1/4 in. barrel lots	
per 100 lbs.	.....\$6 25
Iron and Steel.	
In. 5/16	.....3/4 1/2 3/4 3/4
10 1/4c 9 1/4c 7 1/4c 7 1/4c	.....2 5/8c

**WEATHER STRIPS.**

Metallic Stitched.	
1/2 in., per 100 ft.	.....\$1 86
3/4 in., per 100 ft.	.....2 20
Wood and Felt.	
1/2 in., per 100 ft.	.....\$1 56
3/4 in., per 100 ft.	.....1 56

**WEIGHTS.**

Hitching	.....per lb. Nets
Sash—f. o. b. Chicago	
Smaller lots, per ton	.....\$47 50

**WHEEL BARROWS.**

Common Wood Tray	.....\$3 75
Steel Tray, Competition	.....4 50
Steel leg, garden	.....6 00

**WIRE.**

Plain annealed wire, No. 8	
per 100 lbs.	.....\$3 70
Galvanized barb wire, per	
100 lbs.	.....4 10
Wire cloth—Black painted.	
12-mesh, per 100 sq. ft.	.....2 35
Cattle Wire—galvanized	
catch weight spool, per	
100 lbs.	.....4 60
Galvanized Hog Wire, 80 rod	
spool, per spool	.....3 98
Galvanized plain wire, No. 9,	
per 100 lbs.	.....4 15
Stove Pipe, per stone	.....1 10

**WOOD FACES.**

50% off list.

**WRENCHES.**

Coes Steel Handle, 6-in.	.....40-10%
" " 8-in.	.....40-10%
" " 10-in.	.....40-10%
" " 12-in.	.....40-10%
Coes Knife-Handle, 6-in.	.....40-10%
" " 8-in.	.....40-10%
" " 10-in.	.....40-10%
" " 12-in.	.....40-10%
Coes All Patterns	.....40-10%

**WRINGERS.**

No. 790, Guarantee per doz.	.....\$49 50
No. 770, Bicycle	.....47 00
No. 670, Domestic	.....43 50
No. 110, Brighton	.....39 00
No. 750, Guarantee	.....51 00
No. 740, Bicycle	.....48 50
No. 22, Pioneer	.....35 50
No. 2, Superb	.....25 50

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Harrington & King P'g Co.	.....—
.....Front Cover	
Hart & Cooley Co.	.....—
Haynes-Langenberg Mfg. Co.	.....—
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Henry Furnace & Fdy. Co.	.....5
Hessler Co., H. E.	.....47
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Homer Furnace Co.	.....—
Hones, Inc., Chas. A.	.....—
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**L**

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**N**

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**Q**

Quick Furnace & Supply Co.	.....—
Quick Meal Stove Co.	.....—
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**R**

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Co.	.....—
Rock Island Register Co.	.....—
Roesch Enamel Range Co.	.....8
Ross-Gould	.....—

**S**

Scheible-Moncrief Heater Co.	.....—
Schwab & Sons Co., R. J.	.....—
Spaulding Hotel	.....—
Special Chemicals Co.	.....—
Standard Furn. & Supply Co.	.....—
Standard Ventilator Co.	.....37
Stearns Register Co.	.....3
St. Clair Foundry Co.	.....—
St. Louis Tech. Inst.	.....—
Stove Dealers Supply Co.	.....8
Success Heater & Mfg. Co.	.....—
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**T**

Taylor Co., N. & G.	.....—
Thatcher Furnace Co.	.....5
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**V**

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Co.	.....—
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Vedder Pattern Works	.....8
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